A DEMONSTRATION AND EVALUATION OF AN UNDERDEVELOPED HUMAN RESOURCES PROJECT WITH IMPLICATIONS FOR STATEWIDE MANPOWER PLANNING

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CHAPTER I

THE PROBLEM

Rapid scientific and technological developments in recent years have caused major changes in the composition of America's labor force. These changes are already evidenced in the increased premium placed on skilled labor, and the diminishing need for unskilled labor. A number of traditional jobs have disappeared entirely, and new job openings are changing rapidly in nature. There has been a rapid shift from blue-collar to white-collar jobs.[1] These dramatic changes have far reaching implications for manpower planners and present an increasing need for making information available and accessible on the underdeveloped worker or potential worker.

These changes in the composition of the labor force have resulted in a growing critical need for skilled workers[2] on the one hand, and a need to identify the increasing numbers of individuals who are in need of job training on the other hand. The underdeveloped worker is often called the disadvantaged, and quite frequently is handicapped by the limits of geography, sex, age, race, and low levels of skill or education.[3]

It is apparent that most jobs in the future are going to require persons who are much more skilled, better trained, and better educated than in the past. The United States Department of Labor, using a national matrix of industry-occupational requirements developed under

the supervision of Sol Swerdloff, predicts that the most significant job growth will be in the occupations requiring higher skills. The occupational groups with employment in 1965 and anticipated changes are listed in Table I.

TABLE I

EMPLOYMENT BY MAJOR OCCUPATIONAL GROUP, 1965 AND PROJECTED 1975*

Occupational Code	1965 Employment		Projected 1975 Req.		Percent Change 1965-75
	Number (Millions)	Percent	Number (Millions)	Percent	
TOTAL	72.2	100.0	88.7	100.0	23
White-collar Workers	32.1	44.5	42.5	47.9	32
Professional and Technical	8.9	12.3	12.9	14.5	45
Managers, Officials and Proprietors	7.3	10.2	9.2	10.4	25
Clerical Workers	11.2	15.5	14.6	16.5	31
Sales Workers	4.7	6.5	5.8	6.5	23
Blue-collar Workers	26.5	36.7	30.1	34.0	14
Craftsmen and Foremen	9.2	12.8	11.4	12.9	24
Operatives	13.4	18.6	15.0	16.9	12
Nonfarm Laborers	3.8	5.3	3.7	4.2	**
Service Workers	9.3	12.9	12.6	14.2	34
Farmers and Farm Workers	4.3	5.9	3.5	3.9	-19

*Source: United States Department of Labor, Bureau of Labor Statistics, Tomorrow's Manpower Needs: National Manpower Projections and A Guide to Their Use as a Tool in Developing State and Area Manpower Projections (Washington: Government Printing Office, 1967), p. 534.

**Less than 5 percent.

Note: Projections are based on a three percent level of unemployment in 1975.

The development of many jobs and community manpower training programs has been impeded by a lack of information on the underdeveloped worker and his training potential. Many community leaders, manpower researchers, and vocational-technical educators responsible for planning and implementing underdeveloped human resources programs have limited experience in this manpower field and often do not understand the characteristics of the disadvantaged. Clearly, there is a need for information on the worker who is underdeveloped with respect to job skills so that assistance can be provided for training and employment opportunities.

Simply stated, this study is concerned with the lack of descriptive information relative to identifying underdeveloped human resources for job training and/or employment.

Purpose of the Study

The purpose of this study is to provide basic manpower information pertaining to the methods used in an underdeveloped human resources project in the metropolitan Tulsa, Oklahoma area, and to interpret the implications of these findings for statewide manpower planning. To accomplish the purpose, this study analyzes and interprets data collected by the Underdeveloped Human Resources Project[4] in Tulsa, Oklahoma in the Fall of 1969, and the writer in the Spring of 1970.

Need for the Study

A major goal of the United States is to utilize all available and able manpower. The problem is to develop an overall plan which will efficiently accomplish this goal. A frequently mentioned policy to

help accomplish this goal is to assist the unemployed, underemployed, and low income groups to obtain suitable training and/or employment.

President Nixon has encouraged Governors and Mayors to take an active role in the development of community manpower programs. The President, for example, in a message to the Congress on the proposed Comprehensive Manpower Act of 1969 stated:[5]

> Manpower training is central to our commitment to aid the disadvantaged and to help people off welfare rolls and onto payrolls.
>
> The Nation must have a manpower system that will enable each individual to take part in a sequence of activities--tailored to his unique needs--to prepare for and secure a good job.

Oklahoma is in the process of attracting new industry and business into the state. To accomplish this, available manpower is needed for economic development. Efforts, therefore, must be made by Oklahoma to identify methods for determining the knowledge and skills among those in the underdeveloped human resources category.

The national need for a comprehensive approach to utilize and train all available human resources is indicated in a U.S. Department of Labor publication which stated:[6]

> The Nation's prosperity, economic stability, and productive capacity are limited by a lack of workers with sufficient skills to perform the demanding production, service, and supervisory tasks necessary in an increasingly technological society. At the same time, there are many workers who are unemployed or are employed below their capacity who, with additional education and training, could make a greater contribution to the national economy and share more fully in its benefits.

Investigations are demonstrating that availability of underdeveloped human resources will increase in importance as a major factor in economic progress. For example, Lecht stated that:[7]

> The potentialities for increasing employment and upgrading job opportunities for individuals in the groups which include the bulk of the economy's unutilized and underutilized human resources make up one of the strategic considerations in determining the pace at which the nation can pursue its objectives without encountering manpower bottlenecks. These groups include nonwhites, women, teenagers, the handicapped, and older workers.

Kaufman, Farr, and Shearer emphasized the need for this type of study when they stated:[8]

> Seriously lacking are usable data on the kind of skills available among the unemployed. What kind of inventories are available, and what additional ones would be most useful in matching available supplies of human resources and available job opportunities? Most helpful in this regard would be those data at hand community by community,. . . .

A systematic study of methods being used to identify underdeveloped human resources is needed to assist in completing a statewide manpower planning system for Oklahoma. The urgency of this specific problem is indicated by Braden, et al, when it was declared that:[9]

> It has become apparent in Oklahoma that if existing manpower training and related agencies are to make their maximum contributions to the development of human resources in the decade of the seventies, intensive efforts have to be made in the direction of statewide manpower planning.

It would appear that a study which provides an understanding of some of the variables associated with the underdeveloped worker in the metropolitan Tulsa area could be of assistance to educators, employers, and manpower planners responsible for the socioeconomic growth of the state. In addition, data provided by the study on a community level could provide additional knowledge for a statewide manpower system.

Research Questions

This study provides basic manpower information by analyzing and interpreting the results of an underdeveloped human resources project. Because of the broadness of the basic problem, it is necessary to determine specific questions that need to be answered in carrying out the study. Specifically, an attempt is made to answer the following questions:

1. What is the personal, educational, and family background of the respondents considered in the study?

2. What is the overall employment status of these respondents; is their employment related to race and education; in what occupational areas did they have training; and is age and race related to type of occupational training?

3. What is the income of these respondents; what is their major source of income; is race related to income; and is there a relationship between age, sex, and income for the respondents?

4. How many of the respondents have training but are employed part-time; how many have training but are unemployed; and how many do not have training but desire training?

5. What reactions have the subsample of respondents about the Project's attempt to identify persons in need of training and employment, and what is their present employment status?

Assumptions of the Study

Aside from the normal assumptions of any investigation, such as honesty of response, it was assumed that individuals in need of job

training, retraining, and employment were motivated to complete and return questionnaires for the Underdeveloped Human Resources Project.

Limitations of the Study

There were several limiting factors apparent in this study. As a result, certain restrictions must be placed on the findings and implications. In regard to this study the following limitations were imposed:

1. The study is limited by the population and the variables employed. All findings and implications drawn from this study must be limited to these factors.

2. The data reported on characteristics of respondents were limited to persons residing in nine Oklahoma counties during November of 1969 to January of 1970.

3. Because of the nature of the instrument used in obtaining data for the Project, the validity of the responses given is contingent upon the reading skill of respondents.

4. Questionnaires for the Project were not randomly distributed.

Definition of Terms

The terms used in this study, although found in the general literature, are somewhat confusing and therefore it is necessary to define precise meanings for the terms used in this study. The critical terms used throughout the study are:

Active Manpower Policy. The process embracing those principles and programs which aim to assist the individual to become fully employed in productive work of his choosing consonant with his aptitudes, talents,

and interests under fair standards; to help sustain and rehabilitate the individual experiencing economic or personal hardships; and to help maintain the individual in as adaptable, flexible, and responsive a stance as possible to the changing requirements of the world of work.[10]

Agriculture Education. Agriculture is comprised of the group of related courses or units of subject matter which are organized for carrying on learning experiences concerned with developing knowledge, understandings, and skills involved in preparation for or upgrading in occupations requiring knowledge and skills in agricultural subjects.[11]

Disadvantaged Individual. A poor person who does not have suitable employment and who is either (1) a school dropout, (2) a member of a minority, (3) under 22 years of age, (4) 45 years of age or over, or (5) handicapped.[12]

Distributive Education. Distributive education (distribution and marketing) includes various combinations of subject matter and learning experiences related to the performance of activities that direct the flow of goods and services, including their appropriate utilization, from the producer to the consumer or user.[13]

Handicapped. A person whose work activities are limited because of physical, mental, and/or emotional impairments.[14]

Health Occupations Education. Education for health occupations comprises the body of related subject matter, or the body of related courses, and planned experiences designed to impart knowledge and develop understandings and skills required in the supportive services to the health professions.[15]

Home Economics Education. Home economics comprises the group of related courses or units of instruction organized for purposes of enabling pupils to acquire knowledge and develop understanding, attitudes, and skills relevant to (a) personal, home and family life, and (b) occupational preparation using the knowledge and skills of home economics.[16]

Minority Member. For the purpose of this study the term "minority member" shall mean Negroes (Afro-American or Black), American Indians, Mexican-Americans, and Puerto Ricans.

Occupational Program Areas. Occupational program areas are courses which prepare individuals for sub-professional employment.[17] The following seven occupational program areas are used for this study:

a. Agriculture Education
b. Distributive Education
c. Health Occupations Education
d. Home Economics Education
e. Office Occupations Education
f. Technical Education
g. Trade and Industrial Education

Office Occupations Education. This body of subject matter, or combinations of courses and practical experience, is organized into programs of instruction to provide opportunities for pupils to prepare for and achieve career objectives in selected office occupations.[18]

Poor Person. A person who received cash welfare payments, or whose annual net income is less than $1,600 for non-farm persons or $1,100 for farm persons.[19] Also, a family with an income under $3,000 is considered poor for the purpose of this study.

Rural Community. A community comprised of less than 2,500 inhabitants and not classified as urban.[20]

School Dropout. One who has completed less than 12 grades of education.[21]

Standard Metropolitan Statistical Area. The SMSA is a county or group of contiguous counties which includes at least one city with 50,000 or more inhabitants, or two cities with contiguous boundaries integrated for general economic and social purposes with a combined population of 50,000. In the latter case, the smaller city must have a population of at least 15,000.[22]

Technical Education. Technical Education is concerned with that body of knowledge organized in a planned sequence of classroom and laboratory experiences usually at the postsecondary level to prepare pupils for a cluster of job opportunities in a specialized field of technology.[23]

Trade and Industrial Education. Trade and industrial occupations is the branch of vocational education which is concerned with preparing persons for initial employment, or for upgrading or retraining workers in a wide range of trades and industrial occupations. Such occupations are skilled or semiskilled and are concerned with layout designing, producing, processing, assembling, testing, maintaining, servicing, or repairing any product or commodity.[24]

Tulsa SMSA. The Tulsa SMSA is comprised of Creek County, Osage County, and Tulsa County. Tulsa is the central city and county for this stnadard metropolitan area.[25]

Underdeveloped Human Resources. Those persons who are underutilized or disadvantaged because of geography, sex, age, race, and low levels of skill or education.[26]

Underemployed. Those persons who are working below their skill capacity, or those who are working less than full-time in their industries or occupations, and those who will be unemployed because of obsolete skills.[27] Individuals may be qualitatively and quantitatively underemployed.[28]

Unemployed. Those persons who are not gainfully employed and are available for work.

Urban Community. The urban community is comprised of 2,500 or more inhabitants.[29]

Vocational-Technical Training. Emphasis is placed upon preparing individuals for jobs and careers in trade, industry, agriculture, business and sub-professional fields.[30]

Organization of the Study

The main concern of this chapter has been the nature and background of the problem of conditions and practices for underdeveloped human resources. There was also an attempt to establish a rationale for the necessity of a study in this area. In the latter portion of the chapter, the research questions posed were presented. Then, there was a statement of assumptions, statement of specific limitations, and definition of terms necessary to carry out the study.

Chapter II will present the review of related literature as it applies to the areas of interest under investigation. This review was prompted by the need to determine what national and state practices are used for identifying underdeveloped human resources. Moreover, it was believed that an extensive review of the literature would reveal

certain problems encountered in trying to provide for the worker who is underdeveloped in terms of occupational skills.

A discussion of the procedures used in the study constitutes Chapter III. Construction of the instruments, the respondents, data collection, and analysis will be the major topics discussed. Chapter IV will be limited to a presentation of the analysis of data. Chapter V presents the conclusions and implications for statewide manpower planning.

FOOTNOTES

[1]United States Department of Labor, Tomorrow's Manpower Needs: National Manpower Projections and a Guide to Their Use as a Tool in Developing State and Area Manpower Projections (Washington, 1967), p. 531.

[2]Allan F. Salt, "Estimated Need for Skilled Workers: 1965-75," Monthly Labor Review, LXXXIX (April, 1966), 365.

[3]Jacob J. Kaufman, Grant N. Farr, and John C. Shearer, The Development of Human Resources: A Guide for Research (University Park, Pennsylvania, 1967), p. 7.

[4]The Underdeveloped Human Resources Pilot Project was conducted by the Manpower Committee of the Tulsa Chamber of Commerce under the direction of Mr. Joseph Robinson to gather information on the under-employed, unemployed, and disadvantaged in the Tulsa metropolitan area. This information was desirous for providing training and employment opportunities when the economy was prosperous in 1969.

[5]Bureau of National Affairs, Inc., "President Nixon's Message to Congress on New Manpower Proposals," in Manpower Information Service, I (September 24, 1969), 28-29.

[6]United States Department of Labor, "Manpower Training Act of 1969," A Draft Proposal (Washington, 1969), p. 1.

[7]Leonard A. Lecht, Manpower Requirements for National Objectives in the 1970's (Washington, 1969), p. 1.

[8]Kaufman, Farr, and Shearer, p. 21.

[9]Paul V. Braden and others, Occupational Training Information System: Cycle Two Report (Stillwater, 1970), p. 1.

[10]Seymour L. Wolfbein, Employment, Unemployment, and Public Policy (New York, 1967), p. 121.

[11]United States Department of Health, Education, and Welfare, Standard Terminology for Curriculum and Instruction in Local and State School Systems, Fourth Draft (Washington, 1969), p. 416.

[12]Manpower Information Service, p. 13.

[13]Standard Terminology for Curriculum and Instruction in Local and State School Systems, p. 467.

[14]Manpower Information System, p. 14.

[15]Standard Terminology for Curriculum and Instruction in Local and State School Systems, p. 512.

[16]Ibid., p. 541.

[17]Ibid., p. 415.

[18]Ibid., p. 606.

[19]Manpower Information Service, p. 13.

[20]United States Bureau of the Census, U. S. Census of the Population: 1960, Subject Reports, Occupational Characteristics (Washington, 1963), p. xv.

[21]Manpower Information Service, p. 14.

[22]Bureau of the Budget, Standard Metropolitan Statistical Areas (Washington, 1967), p. 1.

[23]Standard Terminology for Curriculum and Instruction in Local and State School Systems, p. 638.

[24]Ibid., p. 653.

[25]Standard Metropolitan Statistical Areas, p. 40.

[26]Kaufman, Farr, and Shearer, p. 7.

[27]Manpower Information Service, p. 14.

[28]United States Department of Labor, How the Government Measures Unemployment (Washington, 1967), pp. 13-14.

[29]United States Bureau of the Census, U. S. Census of the Population: 1960, Subject Reports, Occupational Characteristics (Washington, 1963), p. xv.

[30]Samuel M. Burt, "Industry Participation in Local Public School Vocational and Technical Education," in Dimensions of Manpower Policy: Programs and Research. (Baltimore, 1966), p. 181.

CHAPTER II

REVIEW OF RELATED LITERATURE

The purpose of this study was to evaluate the methods used in a project which attempted to identify underdeveloped human resources.

An attempt was made to keep several important factors grouped in the review of literature. The review of literature pertinent to this study is, therefore, divided into the following five sections: (1) active manpower policy; (2) concept of human resources development; (3) characteristics of the unemployed and underemployed; (4) some findings on recruiting the disadvantaged for training and employment; and (5) selected developments to aid the disadvantaged.

Active Manpower Policy

Because society has become preoccupied with providing training and education programs of a short, intensive nature for the unemployed and underemployed, a study concerned with underdeveloped human resources must not overlook aspects of an active manpower policy. The literature reveals that an active manpower policy overlaps with employment and educational policies.

An active manpower policy, while placing emphasis on upgrading human skills and jobs, depends on a healthy economy. It is recognized as a supplement to fiscal and monetary policy for promoting economic

growth. The relationships of fiscal and monetary policy to manpower policy were outlined in the 1970 Manpower Report of the President as follows:[1]

> Fiscal and monetary policy must continue to carry the major burden of achieving the goals of stabilization and high employment, but the above problems highlight the need for additional measures to increase the efficacy of these basic tools of economic policy. Manpower programs are potentially one of the most rewarding contributory measures, because they work directly to increase output and employment while reducing pressure on costs and prices and because, while affecting large numbers of people, they can be tailored to the specific and diverse needs of various individuals, groups, and communities.

Although an active manpower policy was enunciated in the 1964 Manpower Report of the President, its origin extends far back into the history of the United States. Federal aid to higher education, for example, began with the Morrill Act of 1862 with grants of land for agricultural colleges. The Smith-Hughes Act of 1917 provided the foundation for Federal-State programs of vocational education. In 1933 the Wagner-Peyser Act was instrumental in establishing the Federal-State Employment Service system which is highly used today to match workers and jobs. Another major act to precede an active manpower policy was the GI bill of rights passed in 1944 as the Servicemen's Readjustment Act.[2]

Two years later saw a more direct move toward an active manpower policy in the form of the Employment Act of 1946. This act, which was really the major forerunner to an active manpower policy, was born from a memory of the depression in the 1930's. It highlighted the fact that the great human and social costs of unemployment needed Government action. The Employment Act of 1946, however, did not contain mandatory provisions for accomplishing maximum employment.

Then the National Defense Education Act of 1958 was passed as a part of the government's concern for an active manpower policy. With growing unemployment early in 1960, federal support was again given through the passage of the Area Redevelopment Act of 1961 and the Manpower Development and Training Act of 1962. It is within the provisions of these latter two acts that special experimental and demonstration programs have been developed to reach and train the disadvantaged.[3]

The development of an active manpower policy in recent years has been an early outcome of the Manpower Development and Training Act of 1962. Wolfbein, a leading authority on manpower economics, defines an active manpower policy as:[4]

> . . . the process embracing those principles and programs which aim to assist the individual to become fully employed in productive work of his choosing consonant with his aptitudes, talents, and interests under fair standards; to help sustain and rehabilitate the individual experiencing economic or personal hardship; and to help maintain the individual in as adaptable, flexible, and responsive a stance as possible to the changing requirements of the world of work.

In the 1965 Manpower Report of the President,[5] former President Johnson stated that such a policy embraces programs:

1. to stimulate more employment opportunities.
2. to upgrade the skills and adaptability of our work force.
3. to link the two--jobs and men--more effectively.

The same publication referred to the goals of an active manpower policy as follows:[6]

> Matching workers and jobs is one of the chief goals of an active manpower policy. The progress we make toward this objective depends, in part, on achievements in the two other major areas of manpower policy--the creation of jobs and the development of workers' abilities.

An earlier publication prepared by the U.S. Department of Labor recognized the differences in human abilities and an active manpower policy by suggesting that:[7]

> Many forces influence human ability, but an active policy of manpower development must be concerned principally with (a) education at all levels, (b) training in occupational skills for youth, the employed, and the unemployed, and (c) rehabilitation and other development aid for those handicapped by physical, mental, cultural, or other disadvantages.

There are four factors normally thought to be included in an active manpower policy: (1) the provision for improved manpower demand and supply information for individuals, employers, and government agencies; (2) the development of manpower supply through education, training, retraining and rehabilitation; (3) the matching of men to jobs through an effective employment service, income maintenance, job development and mobility; and (4) the development of manpower standards such as fair labor standards and anti-discrimination standards.[8]

Concept of Human Resources Development

The literature reveals that the concept of human resources development is important to the continued growth of America. It is generally accepted that a society develops its human resources by educating and training its members.[9] As a result, there exists today a deeper concern with the state of the nation's human resources, both actual and potential.

Today's interest in the development of human resources and the heightened perception of the importance of its quantitative and qualitative characteristics are symbolized in the provision of the Manpower Development and Training Act of 1962. This act requires the President

of the United States to submit an annual Manpower Report to the Congress. The late President John F. Kennedy, in the first Manpower Report of 1963 remarked:[10]

> Manpower is the basic resource. It is the indispensable means of converting other resources to mankind's use and benefit. How well we develop and employ human skills is fundamental in deciding how much we will accomplish as a nation.
>
> The manner in which we do so will, moreover, profoundly determine the kind of nation we become.

Former President Lyndon B. Johnson, a year later, in his Manpower Report had this to say when discussing human resources development.[11]

> This nation is prosperous, strong, materially richer than any in history--largely because of the knowledge, skills, competence, and creativity of our people.
>
> But we are short of our potential. Many of our people do not adequately participate in the national well-being. Much of our human capability is not developed or used. . . .
>
> . . . Our action or inaction toward realizing the full potential of our human resources is a major factor in determining whether we will strengthen justice, security, and freedom at home--and enhance America's ability to set a proud example for all the world.

The concept of human resources development is not new in the United States; only the term is new. It appeared early in the nation's existence, as is indicated by the Northwest Ordinance, the Morrill Act, the G.I. bills starting at the end of World War II, and the National Defense Education Act of 1958.[12] These earlier measures have been followed by a number of current federal programs designed for human resources development.

Socknat[13] points out that the concept of human resources development must include processes which will increase the quantity and

quality of skills and knowledge. Developmental programs, consequently, include elementary through higher education, vocational training, and on-the-job training.

It has been well documented that the most disadvantaged are also those least likely to find out or know about training, placement, and other services that are available. Many of the disadvantaged are disillusioned, apathetic, and have cultural barriers. As a result, greater efforts to make needed services available to the disadvantaged were undertaken by the Employment Service in 1966.[14] The Employment Service's concept of human resources development involves the focusing of staff and resources on reaching the disadvantaged, improving their chances for employment, developing jobs for them, and placing them in these jobs. This concept is predicated on the fact that an active and useful service can be performed for the unemployed, underemployed, and employers alike. In the publication, The Human Resources Development Concept, prepared by the U.S. Department of Labor, reference to the concept of human resources development was made as follows:[15]

> The HRD concept signifies emphasis on an active policy which begins by recognizing that every American has a right to the opportunity to work and to earn a decent wage if he or she is willing and able to do so. But, more: It denies the limitations of a passive policy which screens into the world of work only the currently "qualified" and abandons the rest of the potential work force to an existence of enforced idleness, dependency, and bitterness.
>
> . . . It means reaching out to all who are willing to work, regardless of age, sex, race, color, creed, national origin, experience, educational level, or physical capacity, to help them find a meaningful and productive place in the American economy.

The publication also had this to say about the human resources development concept:[16]

> Working with each individual is time-consuming and costly. The return on such an investment, however, should be measured in terms of making a substantial contribution toward eliminating poverty, remaking urban life, overcoming discrimination in employment, and supporting a higher and more satisfying standard of individual fulfillment.

Many feel that the concept of human resources development should not be based solely on economic terms. It is incorrect, for example, to assume that the central purpose of human resources development is to increase the worker's contribution to the production of goods and services. An increase in income or productivity should not be used as the only criteria for the effectiveness of human resources development. The National Manpower Council represented this point of view with force and eloquency by stating that:[17]

> Manpower /human/ resources differ fundmentally from other economic resources. It is understandable, consequently, why some restiveness is inspired by the seemingly invidious overtones associated with such terms as "demand," "supply," "shortage," "surplus," "waste," "utilization," and "investment," when they are employed in connection with manpower rather than commodities, even though skills and abilities are prices in the labor market on the basis of demand and supply relationships. Knowledge and skills may be figuratively described as constituting a kind of human capital. . . human beings are not "utilized"--nor are their skills consumed--in the same sense as a ton of steel, a bushel of wheat, or a pair of shoes.

Either approach, the humanistic or the economic approach to human resources development distorts the real meaning of the realities and varieties of human behavior.[18] What is needed is a coordinated and unified approach to human resources where the educational, economic, social, political, and cultural aspirations and objectives of society can be satisfied.

Characteristics of the Unemployed and Underemployed

This study was concerned with the methods used for identifying underdeveloped human resources in the greater Tulsa area. The persons who are in this category frequently experience great periods of unemployment and underemployment. The literature reveals that although unemployment falls on all groups and occupational levels, the incidence of unemployment falls heavier among certain groups than others. It is heavier, for example, among blue-collar workers, youth, older workers, minority groups, and the unskilled and undereducated.

The Unemployed

When reviewing the characteristics of the unemployed, it is useful to employ a classification system for looking at the unemployed. The unemployed may be classified into three groups depending on their previous labor force attachment. The first group includes workers who were involuntarily separated from their jobs; including those workers on lay-off. The second group is comprised of persons who voluntarily left their last job, but are in the process of seeking employment. The third group contains those who have been out of the labor force for some time.[19]

The unemployed may be viewed from two major characteristics. These are, according to Wilcock,[20] personal characteristics that include age, sex, and color; and job qualifications such as education and experience.

Age and sex appear to be two of the major variables associated with unemployment. Teenage unemployment, for instance, exceeds all phases of unemployment. In 1969, (for the latest available data)

teenagers and young adults 16 to 24 years of age comprised approximately one-half of the 2.8 million persons unemployed.[21] Older workers over 45 years of age have special unemployment problems, but less of a problem than teenagers. There is less variation in the unemployment rate when sex is considered. In general, women have a higher overall unemployment rate than men.

When race is considered, the unemployment rate for black workers is about twice the rate for white workers, although the unemployment rate for black workers has decreased recently. Unemployment among blacks dropped from a high of 12.4 percent in 1961 to 6.4 percent in 1969.[22] Unemployment among black teenagers continues at an alarmingly high rate of 25 percent. A recent U.S. Department of Labor publication gave the following reasons for the high rate:[23]

> . . . higher school dropout rates resulting in a search for full-time work at earlier ages; inadequate education while in school; high aspirations leading to a reluctance to accept low-paying, low-status jobs; and other, more complex factors.

Numerous studies have demonstrated the close relationship between low levels of educational attainment and the great number of unemployed persons. Wilcock[24] found that many farm workers, service workers, and manual workers below the craftsman level have had less than a high school education. In essence, he is saying that high school dropouts are more likely to be found among the list of unemployed than high school graduates. Workers with little education and no marketable skill form a hard-core of unemployed who are not able to participate fully in the economic system.

Hamel, in pointing out the relationship between education and unemployment, suggested that:[25]

> . . . there is a direct relationship between unemployment and education. With few exceptions, unemployment tends to decline among men and women in the various age groups as the level of education rises. For example, among men 18 years old and over, jobless rates in March 1967 ranged from 5.7 percent for workers who had completed less than 5 years of elementary school to about 1 percent for college graduates.

The exception to this relationship is the unemployment rate of young men 18 years and older with 1 to 3 years of high school. Their unemployment rate was no lower than that of men with less education. The reason, however, can be found in the fact that many of these persons are high school dropouts who find it somewhat more difficult to find a job than older persons. This is especially true for black workers.[26]

The present unemployment situation no longer supports the stereotype that a majority of the unemployed are men in their prime working age who have lost their jobs. As a matter of fact, men who are primary breadwinners comprise a smaller proportion of the total unemployment situation. The male primary breadwinner made up less than one-fourth of the unemployed in 1969.[27]

Generally, unemployment is concentrated quite heavily in the occupational groups containing low-skill workers. Blue-collar workers accounted for about one-half of the experienced unemployed during 1969. Within this group, nonfarm laborers made up a large proportion of the unemployed. Service workers and farm workers contributed a somewhat smaller proportion to the unemployed.[28] But unemployment is only one form of how human resources are underused.

The Underemployed

A more difficult problem to measure than unemployment is the problem of underemployment among many workers. Underemployment presents economic, social, and psychological problems.

The underemployed worker is one who is working below his highest current level of skill and/or at wages below those usually paid for his skills.[29] The extent of this form of underutilization was pointed out in the 1969 Manpower Report of the President as follows:[30]

> It is now recognized also that unemployment is only one aspect, albeit the most extreme, of underutilization of human resources. The totality of wasted manpower includes, in addition to the unemployed, large numbers of people who have given up the search for work, who can find only part-time jobs, or who--still more often--are confined to the least desirable, lowest paid jobs. Many of these people are members of minority groups--Negroes, Mexican Americans, Puerto Ricans, American Indians--suffering the job disadvantages that come from discrimination, poor education, poor health care, and cultural deprivation.

In actuality any worker who is working at less than his full potential may be classified as underemployed. The underemployed may be separated into the following groups according to the U.S. Department of Labor:[31]

1. Workers employed below their actual or potential skill level;
2. Persons outside the labor force who desire or need work;
3. Full-time, year-round workers with inadequate earnings; and
4. Employed persons who are relegated to short work-weeks for reasons beyond their control.

The first form of underemployment is difficult to pinpoint. The underemployed worker, it seems, may be viewed as being on a continuum with an income of a very small amount to one of an infinite amount.

But most of the underemployed are poor persons with an income of less than $3,000.

Underemployed workers are frequently found outside of the central cities of large urban areas. Any consideration of the underemployed, therefore, must also take note of the rural areas. This point was made clear by a U.S. Department of Agriculture bulletin when it was reported that:[32]

> Rural America contains heavy concentrations of underemployment. Underemployment occurs when people earn less than their potential because their nominally full-time occupation is really only seasonal or because, when they do work, they use inefficient methods of production from which they receive little income. Underemployment can be measured by translating it into the amount of unemployment that would result in a similar loss.

Some Findings on Recruiting the Disadvantaged for Training and Employment

The literature indicates there is general agreement that imaginative efforts must be used to recruit the disadvantaged for training and employment. In addition, if the real disadvantaged are being sought, a variety of techniques must be used to identify these individuals.

A dearth of information is available on the methods of identifying underdeveloped human resources for job training and employment opportunities. A number of selected references, however, are referred to in this review which provide insight into the problems of identifying the disadvantaged for training and employment programs.

The Atlanta Human Resources Survey,[33] conducted by the Georgia Department of Labor in 1966, attempted to provide information that could be used to assist unemployed and underemployed individuals obtain

training and employment. A careful study of 1960 census data, and other sources of information, were used to define and identify target areas in the Atlanta Metropolitan area.

Afterwards, workers living in target areas were employed as interviewers primarily because they were familiar with the area and had personal contacts with the people. The director of the survey provided information to representatives of local newspapers and radio stations. Nine Neighborhood Service Centers were used to provide a "word-of-mouth" publicity campaign in each nieghborhood. In addition, each center had a group of staff aides to promote understanding between the centers and the poor. Intensive publicity was given to each target area by distribution of handbills. The survey was termed a success as is evident from the following statement:[34]

> The effectiveness of these combined out-reach efforts and the devotion and efficiency of the individual interviewers is evident from the fact that 46,384 interviews were recorded during the survey.

In a research project entitled, Resources for Southern Manpower Development,[35] the Southern Manpower Technical Assistance Program made a survey of Southern manpower needs and resources. The study included 15 states in the South from Maryland south and west to Texas. One objective of this study was to determine the number of people in the Southern labor force, active and reserve, in need of further training because of income level, educational attainment and job needs. To accomplish this objective the research staff reviewed census data on a county-by-county basis to isolate the principal target population. From this study it was found that:[36]

> Aside from some special efforts established for youth programs, recruitment has been a rather casual affair and, for the most part, any kind of out-reach technique has been lacking. No recruitment pattern was found and little or no evaluation of the process. There is little evidence that determination of training programs and recruitment are conducted with the needs of the large number of Negro trainees in mind.
>
> . . . In general, recruitment practices have not served the needs of the hard-core unemployed and underemployed, but have tended to favor the better-qualified trainees who could obtain jobs without the training but find a better job because of the additional training. This is not considered necessarily bad, but it compromises the objectives of serving the hardcore unemployed.

The study did not indicate which recruitment methods were or were not being used to identify the disadvantaged in each of the 15 states covered.

In a discussion on recruitment and selection of trainees for the Norfolk State Project, a demonstration and research project for the hard-core unemployed conducted by Virginia State College, John T. Blue[37] reported several techniques that were used.

In the first place, a list of potential applicants was compiled from local State Employment Offices serving the target areas. These individuals were invited to report to the employment offices for counseling and testing. This effort was undertaken without public announcement, and was deemed ineffective for reaching the disadvantaged.

Second, a public announcement program to reach the target population was undertaken by using the news media such as newspapers, radio, and television. At this point it was concluded that this technique was excellent for establishing good public relations and informing the public about the project, but it did not significantly increase the number of applicants.

Third, the research team decided to involve participation by community organizations. Ten leading ministers, who had congregations made up largely of working-class people, were invited to the college so that the objectives of the project could be explained. These ministers in turn passed on this information to other ministers through their ministerial alliances. At the same time, a "fact sheet" was developed explaining the project in the form of questions and answers. These sheets were distributed by college students, recreation workers, housing project managers, grocery store clerks, and people in other places of business such as barber shops. Also, project directors spoke to church congregations, social clubs, parent-teachers groups, and individuals at every opportunity about the project. This later effort to involve the community increased the number of trainees significantly. In summary Blue writes:[38]

> Recruitment of trainees is a major problem in retraining programs, and the key to it is wide dissemination of information. The hard-core unemployed person is a special problem because he cannot be reached through the ordinary information channels.
>
> . . . Attracting him to a retraining program involves both finding him and then convincing him of the merits of the training. The Norfolk State Project showed the necessity of conducting an aggressive and personalized recruitment program in order to bring together the hard-core unemployed.

Herbert E. Striner, former director of program development for the Upjohn Institute for Employment Research, discussed somewhat similar recruitment techniques for the Opportunities Industrialization Center (OIC) in Philadelphia. The OIC led by Reverend Leon Sullivan, was the first massive self-help training program started by blacks designed to bring poorly prepared residents of poverty areas into the program. Striner goes on to say:[39]

> . . . in lieu of a large recruitment staff, OIC has established close relationships with churches, public health centers, social worker groups, labor unions, Neighborhood Youth Corps, the City Civil Service Commission, community action councils, and the State Department of Public Assistance in order to reach those in need. The local employment service office has also been utilized. OIC recruitment is a strenuous effort to develop face-to-face contacts in such centers as barber shops, bars, beauty parlors, pool rooms, and on the street. Under a recently revised recruitment structure, the OIC has now developed a recruiting program through companies themselves. The companies are asked to refer to OIC those individuals with marginal skills whom the personnel officers in the companies have rejected for employment. This has become an increasingly important source for recruiting.

At this point one may ask how effective have the recruiting techniques been for bringing the real disadvantaged and unemployed into the OIC program? Using criteria such as age, level of education, and sex, the OIC recruiting procedures were found to be highly successful for the target population of young black males. From April through June of 1965, for example, over 26 percent of the enrollees were under twenty-one years of age; in December of 1966 the proportion was 27.3 percent. During the period of April through June of 1965, approximately 16 percent of the enrollees had eight years or less of education, but by December of 1966 the proportion was down to approximately 9 percent.[40]

One factor which might influence the success of recruitment processes for disadvantaged persons in need of job training is the use of a social perspective. For example, recruitment efforts have been more successful in areas where socially and culturally sensitive strategies and tactics were operative over against a more individualistically oriented approach.[41]

Identifying and recruiting the disadvantaged calls for the best available basic demographic data about the target population. There

must be an accurate estimate of where the disadvantaged are to be found geographically. What is needed is information on a city-wide or county-wide basis. An essential consideration in identifying the disadvantaged is where does the target population live? Data are needed on street boundaries, educational attainment, and ethnic and racial characteristics of the populations area by area. With this type of information recruitment priorities could be established for isolating the real disadvantaged.[42]

A logical source for demographic data and information on the socioeconomic characteristics of the population is data collected by the United States Bureau of the Census.[43] The census, which is taken every ten years, seeks information about the general population such as socioeconomic characteristics. After destroying all identity of the individual, the data are placed on magnetic tape for use by researchers.

Questionnaires are mailed to approximately three-fifths of the population. The other two-fifths is counted by census enumerators. In covering the total population, items are structured around three sampling fractions: 20 percent, 15 percent, and 5 percent. Unlike the past, the 1970 census will tabulate data by blocks for the entire urbanized area of each standard metropolitan statistical area.[44]

With detailed information on age, sex, race, income, employment status, and education from census data, it would appear that a target population of unemployed and underemployed persons could be isolated. But to have a general understanding of who the disadvantaged are will not suffice. Sviridoff, writing on the need for detailed information, emphasizes the efforts that manpower programs must take. He writes:[45]

> In every single community in the nation, we should be finding out right now, specifically, by name, age, address, employment, and personal history, who the people are who do not share our prosperity and who seem to have little hope of doing so.

This approach involves a block-by-block, doorway-by-doorway attack. It could start with the block information gathered through the 1970 census for future studies of this type.

Selected Developments to Aid the Disadvantaged

It is generally recognized that a huge reservoir of trainable but underdeveloped manpower is present in our society. Past research indicates that this reservoir of manpower will respond positively to an opportunity for training and employment. A combination of resources, however, must be used in developing the unrealized potential of our human resources. The literature reveals that there are two recent developments which warrant special attention for underdeveloped human resources.

Occupational Information System

It appears that any attempt to train or employ the underdeveloped worker should consider the merits of an occupational information system. Such a system could provide up-to-date data on the supply and demand for various jobs and workers. Also, the system could be used to match the qualifications of unemployed, underemployed, and low income persons with local employer requirements and job opportunities.[46]

Paul V. Braden,[47] and associates, developed an occupational training information system (OTIS) for the State of Oklahoma. The purpose

of OTIS was to develop and implement a systematic and continuous occupational training information system for changes in Oklahoma's occupational offerings.

The project was designed to have six components: (1) manpower supply; (2) demand; (3) cost; (4) follow-up; (5) underdeveloped human resources; and (6) socio-political involvements.[48] The OTIS project will collect information periodically in order to interface on a yearly basis manpower supply and demand data for purposes of manpower planning.

With this type of information it will be possible to assist underdeveloped workers in obtaining training and employment. Jobs available, for instance, in different occupational and geographical areas will be known to manpower planners and educators.

Supplemental Labor Market Information

The search for a job is a relatively simple matter for most people. Most will rely on the want ad section of daily newspapers or upon demand, and upon an acquaintance for information about a prospective job. Many of the unemployed, underemployed, and/or disadvantaged, however, because of a lack of marketable skills, undereducation, police records, and a record of rejection due to discrimination and a host of other factors, have virtually given up the job search process.

News media addressed directly to the target areas will generally miss the disadvantaged. As a result, it seems likely that supplemental information about labor processes will be a tremendous input to aiding the underdeveloped worker. Sheppard and Belitsky[49] studied the job-seeking behavior of unemployed workers in Erie County, Pennsylvania. They studied, among other things, the socioeconomic characteristics

among a sample of male and female blue-collar workers who were unemployed. It was found that black workers and workers with less education had less success in obtaining re-employment compared to other workers.

In speaking of the job-search behavior for black respondents in their study, Sheppard and Belitsky suggested that:[50]

> . . . Negroes use friends and relatives to a somewhat greater extent than do whites. The fact that they used unions more than the regular sample as a whole is a reflection of the types of industries or occupations in which they have been employed (primarily casual labor), wherein the union performs a "hiring-hall" function. Finally, their use of welfare and similar organizations is much higher; greater involvement in public assistance agencies as clients, plus the fact that a local neighborhood center for Negroes in Erie has acted as an "unofficial" employment center, help to explain this difference.

This information seems to indicate that the black worker, and other minorities are in particular need of supplemental labor market information because of the disadvantages he faces in the job market. His job-search behavior focuses primarily on informal channels of friends and relatives.

In an experimental study, David W. Stevens[51] provided supplemental labor market information to selected Employment Service registrants in the Pittsburg, Pennsylvania area. The study was designed so that an experimental group of black and white male job-seekers would have specific job prospect data that the control group did not have. He found, among other things, that a larger proportion of the participants in the experimental group obtained jobs, and sooner on the average, than those participants in the control group.

Finally, the disadvantaged worker quite often has a lack of information about where to start, and how to start his job-search activity.

It seems plausible, therefore, that occupational information on a supplemental information basis could be used to properly match the worker with an appropriate job.

Summary

A review of literature related to this study has been presented in this chapter. The aim has been to point out some of the provisions and practices for underdeveloped human resources.

The search of the literature revealed that a variety of factors for identifying underdeveloped human resources must be considered. Some of the factors involved include an active manpower policy for the economic well-being of the Nation, human resources development, characteristics of the unemployed and underemployed, recruitment of the disadvantaged, and selected developments to aid the disadvantaged. The literature also revealed that a variety of techniques and approaches must be used to effectively identify the underdeveloped.

Chapter III will be a discussion of the procedures of the study, design of the study, and methods of securing data.

FOOTNOTES

[1]Manpower Report of the President and A Report on Manpower Requirements, Resources, Utilization, and Training (Washington, 1970), pp. 7-8.

[2]Manpower Report of the President and A Report on Manpower Requirements, Resources, Utilization, and Training (Washington, 1969), pp. 1-3.

[3]Ibid.

[4]Seymour L. Wolfbein, Employment, Unemployment, and Public Policy (New York, 1965), p. 121.

[5]Manpower Report of the President and A Report on Manpower Requirements, Resources, Utilization, and Training (Washington, 1965), p. ix.

[6]Ibid., p. 143.

[7]Manpower Report of the President and A Report on Manpower Requirements Resources, Utilization, and Training (Washington, 1964), pp. xiii-xiv.

[8]Wolfbein, p. 126.

[9]Russell G. Davis, Planning Human Resource Development: Educational Models and Schemata (Chicago, 1966), p. 1.

[10]Manpower Report of the President and A Report on Manpower Requirements, Resources, Utilization, and Training (Washington, 1963), p. xii.

[11]Manpower Report of the President and A Report on Manpower Requirements, Resources, Utilization, and Training (Washington, 1964), pp. xi, xix.

[12]Harold L. Sheppard, "The Concept and Problems of Human Resources Development," in Human Resources Development (Ames, 1967), p. 31.

[13]James A. Socknat, "Theory and Concepts of an Active Human Resources Policy," Iowa Business Digest, XXXVII (October, 1966), 5.

[14]Manpower Report of the President and A Report on Manpower Requirements, Resources, Utilization, and Training (Washington, 1967), p. 48.

[15]United States Department of Labor, The Human Resources Development Concept (Washington, 1967), p. 1.

[16]Ibid., p. 6.

[17]National Manpower Council, Manpower Policies for A Democratic Society (New York, 1965), p. 8.

[18]Ibid., p. 9.

[19]Curtis L. Smith, Jr., "The Unemployed: Why They Started Looking for Work," Monthly Labor Review, LXXXVIII (October, 1965), 1196.

[20]Richard C. Wilcock, "Who Are the Unemployed?" in In Aid of the Unemployed edited by Joseph M. Becker, S. J. (Baltimore, 1965), p. 31.

[21]Manpower Report of the President and A Report on Manpower Requirements, Resources, Utilization, and Training (Washington, 1970) p. 39.

[22]Ibid., p. 229.

[23]Manpower Report of the President and A Report on Manpower Requirements, Resources, Utilization, and Training (Washington, 1969), p. 43.

[24]Wilcock, p. 33.

[25]Harvey R. Hamel, "Educational Attainment of Workers," Monthly Labor Review, XCI (February, 1968), 27.

[26]Ibid., pp. 27-28.

[27]Paul O. Flaim and Paul M. Schwab, "Employment and Unemployment Developments in 1969," Monthly Labor Review, XCIII (February, 1970), 50-51.

[28]Ibid., p. 51.

[29]Wilcock, pp. 28-29.

[30]Manpower Report of the President and A Report on Manpower Requirements, Resources, Utilization, and Training (Washington, 1969), p. 42.

[31]Ibid., p. 45.

[32]Rural People in the American Economy (Washington, 1966), p. 3.

[33]Georgia Department of Labor, Atlanta Human Resources Survey: Selected Community Centers (Atlanta, 1966), p. 1.

[34]Ibid., p. 2.

[35]Southern Manpower Technical Assistance Program, Resources for Southern Manpower Development (Oak Ridge, 1965),

[36]Ibid., p. 15.

[37]John T. Blue, "Training the Hard-Core Unemployed," in Manpower Requirements and Human Resource Adjustment (Greensboro, 1965), pp. 135-136.

[38]Ibid., p. 135.

[39]Herbert E. Striner, "The Opportunities Industrialization Center: A Successful Demonstration of Minority Self-Help, Training and Education," in The Education and Training of Racial Minorities (Madison, 1968), pp. 62-64.

[40]Ibid., p. 64.

[41]United States Department of Labor, Breakthrough for Disadvantaged Youth (Washington, 1969), p. 39.

[42]Ibid., p. 40.

[43]United States Department of Commerce, Data Access Description, No. 14, March, 1970 (Washington: Government Printing Office, 1970), pp. 1-16.

[44]United States Department of Commerce, Data Access Description, No. 12, Census Geography, December, 1969 (Washington: Government Printing Office, 1969), pp. 1-2.

[45]Mitchell S. Sviridoff, "Manpower Development: The New Haven Approach," in Manpower Development in Appalachia: An Approach to Unemployment (New York, 1968), pp. 83-84.

[46]Manpower Report of the President and A Report on Manpower Requirements, Resources, Utilization, and Training (Washington, 1970), p. 199.

[47]Paul V. Braden and others, Occupational Training Information System: Cycle Two Report (Stillwater, 1970), p. 3.

[48]Ibid., p. xv.

[49]Harold L. Sheppard and A. Harvey Belitsky, The Job Hunt: Job Seeking Behavior of Unemployed Workers in a Local Economy (Baltimore, 1966), pp. 19-20.

[50]Ibid., p. 157.

[51]David W. Stevens, Supplemental Labor Market Information As A Means to Increase the Effectiveness of Job-Search Activity (University Park, 1968), p. 113.

CHAPTER III

PROCEDURES

The purpose of this chapter is to describe the design rationale, the sample populations, the instrument, and data collection procedures. Procedures for analyzing the data are also presented.

Design Rationale

Basically, the design of this study is survey research in nature and conforms to Kerlinger's definition:[1]

> Survey research is that branch of social scientific investigation that studies large and small populations (or universes) by selecting and studying samples chosen from the populations to discover the relative incidence, distribution, and interrelations of sociological and psychological variables.

Commenting on the limitations of survey research, Kerlinger cautioned that:[2]

> First, survey information ordinarily does not penetrate very deeply below the surface. The scope of the information sought is usually emphasized at the expense of depth. . . .
>
> A second weakness is a practical one. Survey research is demanding of time and money.

Within the limitations set forth above, the investigator is aware that survey research is, theoretically, less scientific than the true experimental design. Caution, therefore, must be used in interpreting the results of this study. Kerlinger, however, in speaking of the advantages of survey research designs stated:[3]

> Survey research has the advantage of wide scope: a great deal of information can be obtained from a large population. . . . Survey research information is accurate within sampling error ranges, of course. The accuracy of properly drawn samples is frequently surprising, even to experts in the field. A sample of 600 to 700 individuals or families can give a remarkably accurate portrait of a community--its values, attitudes, and beliefs.

It appears, therefore, that the design of this study could be considered as a survey research design. Kerlinger's suggestions concerning the use of survey research design were given specific consideration in this study. The strength of the design of this research was considered to be adequate and basically sound.

The remainder of this chapter will be devoted to a separate review of the nature of the samples, instruments, data collection, and data analysis. Since this study analyzes and interprets data collected for the Underdeveloped Human Resources Project, the instruments and data collection procedures described here, unless otherwise indicated, will represent the methods used by the Project.

Nature of the Samples

There are two samples involved in this study; namely: (1) a non-random sample of 5,045 respondents residing in nine counties in Oklahoma, and (2) a random subsample of 41 respondents drawn from the sample of 5,045.

Sample for the Nine Counties

The geographical scope of the present study includes respondents residing in nine counties in Oklahoma surrounding metropolitan Tulsa during the Fall of 1969. These counties include: (1) Creek County, (2) Muskogee County, (3) Nowata County, (4) Okmulgee County,

(5) Osage County, (6) Rogers County, (7) Tulsa County, (8) Wagoner County, and (9) Washington County. The location of the nine counties is shown in Figure 1.

Preliminary figures for the 1970 population reveal that the nine counties have a combined population of 660,644. The Tulsa Standard Metropolitan Statistical Area (includes Creek, Osage, and Tulsa counties) has a population, according to preliminary figures, of 468,505. Final certified census figures will not be released until December of 1970.

Complete data are not available on how many persons in the projected population of 660,644 are underdeveloped with respect to job training and an income of less than $3,000. Estimates,[4] however, can be made by taking the percentage (27 percent) of economically disadvantaged for Oklahoma[5] in 1969 and applying this percentage to the projected nine county population of 660,644. If it is assumed that the percentage of economically disadvantaged has not varied greatly, and that the percentage for the nine counties is the same as for the state, then the number of persons underdeveloped in terms of an income less than $3,000 for all nine counties is 178,373. It is recognized that this figure is an estimate and should be interpreted accordingly.

There were approximately 285,000 questionnaires distributed in target areas throughout the nine counties. It was reasoned by the Manpower Committee of the Tulsa Chamber of Commerce that if 285,000 questionnaires were made available, a return of approximately 10,000 forms could be expected.

The total response consisted of 5,132 codable questionnaires. Eighty-seven questionnaires, however, were returned too late to be

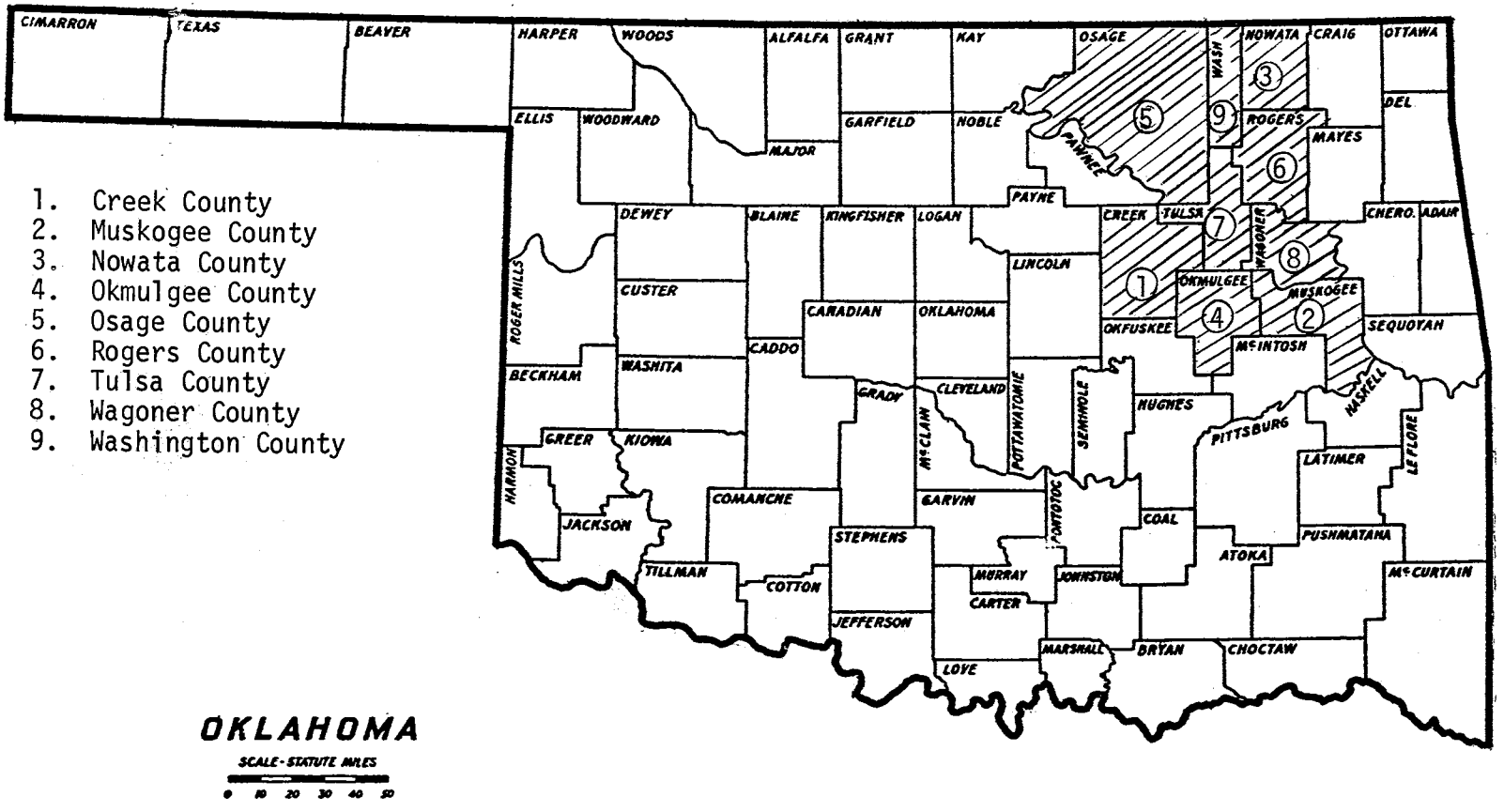

Figure 1. Location of Nine Oklahoma Counties that Respondents Resided in, Fall, 1969.

included in this analysis. Therefore, the study sample is comprised of 5,045 respondents who returned questionnaires before the cut-off date. Table II gives the percent distribution of respondents by race and area population.

TABLE II

PERCENT DISTRIBUTION OF STUDY SAMPLE
BY RACE AND AREA POPULATION

Race	Number Identified in Sample	Percent in Sample	Percent in Population for Total Area*
White	4,188	83.0	88.9
Negro	580	11.5	9.0
American Indian	189	3.7	2.8
Mexican American	15	0.3	**
Oriental	11	0.2	**
No Response to Item	62	1.2	
TOTAL	5,045	99.9***	99.9***

*Calculated from Distribution of Population by Race in Oklahoma: Data from 1960 Census (Oklahoma City: Oklahoma Employment Security Commission, 1967), pp. 11-12.

**Specific data are not available for these groups. The Census classifies this as the "All Other" group which is less than 0.1 percent for the nine counties combined.

***Percent does not add to 100 due to rounding.

As inspection of Table II reveals that the study sample is generally representative of the population. As a matter of fact, a

higher percentage is found in the study sample compared to the percentage of population for the area. The one exception is found in the white category which was slightly less than the population for the nine counties, 83.0 percent for the study sample compared to 88.1 percent for the area.

The Subsample

A subsample was drawn for personal interviews by the writer in order to provide a validity check, and to ascertain the present status of respondents to the questionnaire. This was done in June of 1970 using a procedure suggested by Dr. Leroy Folks,[6] i.e., a proportionate stratified random sample.

In drawing the subsample, it seemed reasonable to select the subsample from a critical area, one with a high proportion of unemployed, underemployed, and undertrained persons. At the same time, the writer recognized that the subsample must be drawn from a geographical area that was workable within the time and financial limitations of the study. To satisfy these conditions, a subsample of 41 respondents was drawn from the greater Tulsa area. The subsample was drawn from the three zip codes in Tulsa having the largest frequency of respondents to the original questionnaire. This included 183, 37, and 25 respondents, respectively. A proportionate random subsample of 41 was drawn from the three zip code areas. The subsample was stratified on the basis of the three zip codes as 31, 6, and 4, respectively.

The stratified subsample was drawn using a table of random numbers. For each stratum, more random numbers were assigned than the number of respondents needed for the subsample. This was done to allow for

refusals and nontraceable respondents so that the desired subsample size could be attained. The reader should be cautioned that inferences can only be made from the subsample to the sample of 245 from which it was drawn. There is reason to believe, however, that the subsample is representative of the total sample of unemployed, underemployed, and undertrained. The subsample of 41 was drawn to give a 95 percent level of probability of being representative of the sample from which it was drawn.

Instrument

An instrument was developed by the Manpower Committee of the Tulsa Chamber of Commerce with the assistance of several organizations. These organizations were: (1) the State Department of Vocational and Technical Education, (2) the Oklahoma Industrial Development and Park Department, and (3) the Occupational Training Information System. The writer was closely associated with the latter organization.

A tentative questionnaire was constructed after several meetings on identifying the underdeveloped worker. Needed changes were made after all of the organizations listed above had studied the tentative instrument and a revised questionnaire was developed (see Appendix A). The questionnaire was designed to seek information about who the unemployed, underemployed, and untrained workers were by asking for personal, socioeconomic, and employment status information. Among the demographic characteristics included in the instrument were: age, sex, marital status, race, number of dependents, and educational attainment. At the same time, the instrument was constructed so that information could be obtained on the status of the respondent's

vocational-technical training. With regard to vocational-technical training per se, attention was focused on the respondent's type of occupational training and interest in taking vocational-technical training.

Data Collection

There were two different phases of data collection for this study. These were the collection of information on respondents in all nine counties and the collection of information on the subsample by personal interviews.

Data Collection for Complete Sample

From November of 1969 to January of 1970, questionnaires were distributed and collected in the nine counties. In order to obtain a wide distribution of questionnaires, several distinct steps were taken so that the methodology of making questionnaires available would be as representative as possible. These steps were as follows:[7]

1. A cover letter to accompany each questionnaire was written by the Governor informing the respondent about the importance of the survey (see Appendix A).

2. Several news releases were developed by the Tulsa Chamber of Commerce for distribution to communities with a local newspaper.

3. The Tulsa Chamber of Commerce developed scripts about the survey for spot announcements on local radio stations.

4. Radio station KRMG in Tulsa developed six (6) accent lines and played each five (5) times for two (2) days for a total exposure of thirty (30) playings.

5. The University of Tulsa's Radio-Television-Drama Department developed scripts and film strips for area television stations.

6. Local television stations gave spot announcements for a one month period promoting the survey.

The primary method of distributing the questionnaires was through selected county and community coordinators and local Chambers of Commerce. In addition, the area vocational-technical schools at Drumright, Bartlesville, and Okmulgee served as coordination and collection centers. The questionnaires were made available at (1) local elementary schools and distributed by grades one through four, (2) local food markets, (3) service stations, and (4) the local Chamber of Commerce. In the city of Tulsa, forms were distributed only to schools with low-income families. This eliminated the entire southeast portion of Tulsa.

The process of gathering the data required more than three months. The cut-off date for receiving responses was set at January 31, 1970. After this date, the data gathered were coded for key punching. A guide for coding the type of occupational training of each respondent was developed (see Appendix B) so that an analysis could be made to determine in which of the seven occupational program areas training had been received. The seven occupational program areas are normally used to structure vocational-technical training programs. The data were key punched and verified at the Tri-County Area Technical School in Bartlesville, Oklahoma.

Personal Interview Technique for Subsample

To provide a validity check and to ascertain the present status of selected respondents, personal interviews were conducted by the writer with a subsample of 41 respondents. These interviews were conducted in the greater Tulsa area from June 20, 1970, to June 29, 1970. To facilitate the recording of pertinent data and for the purpose of expediency, an interview guide (see Appendix C) was constructed for use in questioning respondents in the subsample. The interview guide was designed to elicit information in three areas: (1) personal and educational background information, (2) present and past employment status information, and (3) attitudes toward the Labor Availability Survey. Interviewees were explained the purpose of the Labor Availability Survey so that their opinions could be obtained. A set of open-end questions were used for this purpose.

Obtaining the desired number (41) of interviews proved to be a difficult task. The writer encountered extreme difficulty in locating some of the respondents. Among the respondents interviewed, approximately half of the telephone numbers had been discontinued.

The first step in the attempt to interview the respondents was to call the person (when a telephone was in the residence) explaining the purpose of the interview and set a tentative appointment. While this procedure failed to identify the correct respondent in many cases, it was most helpful in verifying the correct address or change of address. A visit was made to the respondent's address whenever a phone number was not available. This resulted in an immediate interview most of the time. Two visits were made to a respondent's address in an attempt to obtain an interview on two different dates.

If the second visit was a failure, the name was replaced with another randomly selected name. Table III reveals the interviewing results for the subsample.

TABLE III

INTERVIEWING RESULTS FOR SUBSAMPLE

Results	Number
Interviewed	41
Number Moved with No Forwarding Address	7
Number Refused to be Interviewed	4
TOTAL	52

Validity of the Study

Personal interviews were conducted using a proportionate stratified random subsample of 41 respondents in order to check for bias of nonresponses to items on the questionnaire. The technique for selecting the subsample was previously suggested by Dr. Leroy Folks[8] as being adequate for the purposes of this study.

A Chi-Square test was made on relevant items comparing the subsample with the total population of respondents. It was found that there was no statistically significant difference between the subsample

of respondents and the total population of respondents. The problem of nonresponse bias was ignored in the subsequent analysis, and it was assumed that interpretation of questionnaire items did not present any significant difficulty for respondents.

Data Analysis

After verification, the data were placed on magnetic tape and processed through the IBM 360 computing facilities of the Computer Center at Oklahoma State University.

Two methods were used for data analysis in this study. Percentages and frequency counts were used to determine the distribution of responses for all items. The distributions on basic characteristics of the respondents were presented in tables so that significant patterns and relations could be studied.

The Chi-Square test was chosen as a technique of inference based on Sidney Siegel's[9] assumptions regarding the nature of data in the behavioral sciences. This technique does not make as numerous or stringent assumptions about the sample. The Chi-Square test results in conclusions which require fewer qualifications. The Chi-Square test, consequently, was used to determine the relationships between employment status and a number of demographic variables: educational attainment; types of occupational training; and race. Other variables considered in combination with the above were: age of respondents; sex; and income.

Chi-Square, which is a non-parametric test, was suitable for this study because the data of this research constituted frequencies which

were placed in distinct categories. Haber and Runyon had this to say about the Chi-Square test:[10]

> . . . it permits us to determine whether or not a significant difference exists between the observed number of cases falling into each category, and the expected number of cases, based on the null hypothesis. In other words, it permits us to answer the question, how well does our observed distribution fit the theoretical distribution.

The Chi-Square test requires that the expected frequencies in each cell should not be too small. For the purpose of this study, cells were collapsed whenever the expected frequency was less than 5. This does not mean that the observed or actual frequencies should not be less than 5.

A contingency coefficient was computed for each Chi-Square test so that the degree of relationship could be studied. The relationship between the Chi-Square test and the contingency coefficient (C) were given by Bruning and Kintz as follows:[11]

> When you have frequency data comparing the effects of two variables and there are more than two groups on either of the two variables, the complex chi-square can be used to test the hypothesis of no relationship between the variables. If the chi-square test shows that there is most likely a relationship between the variables, then the contingency coefficient can be computed to give an indication of the degree of the relationship.

Following the suggestions and implementations of the techniques reviewed above, the data analyzed with the Chi-Square test were treated in the manner recommended by Siegel:[12]

1. The level of significance was selected in advance at the .05 level.

2. The region of rejection was predicted in advance as a two-tailed region of rejection and thus implied that the distribution is located at both ends.

Implications for statewide manpower planning were made on the basis of reactions obtained from manpower experts at the conference on Oklahoma's Occupational Training Information System.[13]

Summary

The purpose of this chapter has been to give a general description of the procedures of the study. Major areas discussed were the nature of the samples, instrument, data collection, and data analysis. The study sample consisted of 5,045 respondents from nine counties surrounding metropolitan Tulsa, Oklahoma.

The tentative and final questionnaire was constructed by the Manpower Committee of the Tulsa Chamber of Commerce with assistance from (1) the State Department of Vocational and Technical Education, (2) the Oklahoma Industrial Development and Park Development, and (3) the Occupational Training Information System. The writer was closely associated with the latter organization. The next chapter will present an analysis of data secured from questionnaires and personal interviews conducted by the writer.

FOOTNOTES

[1]Fred N. Kerlinger, Foundations of Behavioral Research (New York, 1966), p. 393.

[2]Ibid., p. 407.

[3]Ibid.

[4]This was done using a procedure suggested by Dr. James L. Harris. Dr. Harris, who is a Data Analyst, Division of Research, Planning and Evaluation, Oklahoma State Department of Vocational and Technical Education, believes that this is the best possible data at this time.

[5]United States Office of Programs for the Disadvantaged, Vocational Training - Employment and Unemployment: Part II--Profiles of States (Washington, 1969).

[6]Dr. Leroy Folks is a Professor and Chairman of the Statistical Unit of the Mathematics Department at Oklahoma State University.

[7]These procedures were verified in a personal interview with Mr. Joseph Robinson who directed the survey on underdeveloped human resources.

[8]See Footnote 6.

[9]Sidney Siegel, Nonparametric Statistics for the Behavioral Sciences (New York, 1956), p. 3.

[10]Audrey Haber and Richard P. Runyon, General Statistics (Reading, Massachusetts, 1969), p. 242.

[11]James L. Bruning and B. L. Kintz, Computational Handbook of Statistics (Glenview, Illinois, 1968), p. 209.

[12]Siegel, pp. 6, 13.

[13]The conference on Oklahoma's Occupational Training Information System was a national conference held in Oklahoma City, Oklahoma, July 16, 1970. At this conference the Occupational Training Information System Advisory Committee, which consists of representatives involved in manpower planning, were consulted on implications for statewide manpower planning.

CHAPTER IV

ANALYSIS OF DATA

The objective of this chapter is twofold: (1) to present data analyses relating to the research questions examined in this study, and (2) to present a summary of the findings.

The reader is cautioned that certain weaknesses of the questionnaire utilized in this study resulted in limited data analysis. First, it was impossible to determine whether unemployed respondents were actively seeking work or whether they were not in the labor force. This resulted in a lack of information necessary to determine labor force participation rates and the unemployment rates. The fact that unemployed respondents completed the questionnaire, however, indicates that they were oriented toward the labor market. A second weakness was the inability to differentiate between on-the-job training and formal vocational-technical training of respondents.

Data Analysis Relating to Research Questions

Research Question 1: What is the personal, educational and family background of the respondents considered in the study?

Age, Sex and Race

The age distribution for all respondents is indicated in Table IV. The heaviest age concentration for white respondents is the 16-21

TABLE IV

FREQUENCY AND PERCENTAGE ANALYSIS OF THE
AGE AND SEX OF RESPONDENTS, BY RACE

	Race							
	White		Negro		All Others*		Total	
	N	%	N	%	N	%	N	%
Age Group								
16-21	1,466	35.0	120	20.7	62	29.0	1,648	33.1
22-30	538	12.8	178	30.7	42	19.6	758	15.2
31-40	1,226	29.3	144	24.9	66	30.8	1,436	28.8
41-50	672	16.0	92	15.9	24	11.2	788	15.8
51 and Up	222	5.3	37	6.4	17	7.9	276	5.5
No Response to Item	64	1.5	9	1.5	4	1.8	77	1.5
TOTAL	4,188	99.9**	580	100.1**	215	100.3**	4,983***	99.9**
Median Age Interval: 31-40 years								
Sex								
Male	2,433	58.1	201	34.7	122	57.0	2,756	55.3
Female	1,734	41.4	362	62.4	91	42.5	2,187	43.9
No Response to Item	21	0.5	17	2.9	2	0.9	40	0.8
TOTAL	4,188	100.0	580	100.0	215	100.4**	4,983***	100.0

*The "all others" group was combined since their combined frequency was less than 5.0 percent of the total sample. It is comprised of American Indian, Mexican American, and Oriental.
**Percentages may not add to 100.0 percent due to rounding.
***Total does not equal 5,045 due to 62 respondents not making an entry to the race item on the questionnaire.

age group, while Negro respondents tended to be concentrated more heavily in the 22-30 age interval. Approximately 30.0 percent of the respondents in the "all others" group is in the 16-21 category with another 30.8 percent in the 31-40 age interval. The youthfulness of the respondents is indicated by the fact that 33.1 percent were between 16-21; 15.2 percent were 22-30; 28.8 percent were 31-40; and only 5.5 percent were 51 years old or more.

It is seen that slightly more males (2,756) are included in the total sample than females (2,187). As reported in Table IV, 58.1 percent of the white respondents were male and 41.4 percent were female, whereas only 34.7 percent of the Negro respondents were male and 62.4 percent were female. It is possible that Negro males were "turned off" to such efforts due to a lack of confidence in the survey. Percentage wise, the male-female proportion for the "all others" group is similar to white respondents with 57.0 percent male and 42.5 percent of the group female.

Of the 5,045 respondents considered in the study, 4,188 or 83.0 percent reported their race as white, while 580 or 11.5 percent indicated their race as Negro. The other races were distributed as follows: American Indian, 189 or 3.7 percent; Mexican American, 15 or 0.3 percent; and Oriental, 11 or 0.2 percent. Since the responses indicated as American Indian, Mexican American, and Oriental were less than 5.0 percent of the total respondents, they were combined into the "all others" group for meaningful statistical analysis. There was no entry made for the race item on the questionnaire by 62 respondents. Any cross-analysis using race, therefore, will not add to the total of 5,045 respondents.

Educational Attainment

Numerous studies have shown that the amount and type of education one has is a major factor in his employment or unemployment. In general, the better one's education, the better his chances are for obtaining and keeping a job. The educational background of respondents varied from less than 4 years of schooling to several years of college. Table V summarizes the educational attainment of respondents considered in the study. Approximately 39.0 percent or 1,928 of the respondents were high school graduates. Percentage wise, slightly more (40.5 percent) respondents had completed from 9 to 11 years of school. The median years of school completed by respondents without college was 11.

The data show very little difference between races for 1 to 11 years of school. Inspection of Table V, however, reveals that a larger percentage of Negro respondents (45.0 percent) completed 12 years of school than either white respondents (37.9 percent) or respondents in the "all others" category (37.0 percent). One possible explanation for the higher percentage of Negroes with 12 years of education is that a high percentage of the Negro respondents were females, and females normally have a higher level of educational attainment than males.

Approximately 16.0 percent of the respondent indicated 1 to 4 years of college while 8.6 percent reported "other" education. The reader is cautioned that the information in Table V may be somewhat misleading. Respondents who reported college or "other" education could also have reported a number of years of elementary or high school. This item on the questionnaire seems to have been confusing. The result is that a slightly higher proportion of respondents completing 12 years of school is recorded.

TABLE V

FREQUENCY AND PERCENTAGE ANALYSIS OF EDUCATIONAL ATTAINMENT OF RESPONDENTS, BY RACE

Educational Level	Race							
	White		Negro		All Others		Total	
	N	%	N	%	N	%	N	%
Elementary and High School								
1 to 4 years	30	0.7	3	0.5	4	1.9	37	0.7
5 to 8 years	230	5.5	40	6.9	18	8.4	288	5.8
9 to 11 years	1,709	40.9	218	37.6	92	43.0	2,019	40.5
12 years	1,588	37.9	261	45.0	79	37.0	1,928	38.7
No Response to Item	631	15.1	58	10.0	22	9.8	711	14.3
TOTAL	4,188	100.1*	580	100.0	215	100.1*	4,983	100.0
College								
1 to 3 years	387	9.3	61	10.5	24	11.2	472	9.5
4 years	291	7.0	22	3.8	3	1.4	316	6.3
Other	367	8.8	40	6.9	21	9.8	428	8.6
No Response to Item	3,143	75.0	457	78.8	167	77.6	3,767	75.6
TOTAL	4,188	100.1*	580	100.0	215	100.0	4,983	100.0

*Percentages may not add to 100.0 percent due to rounding.

Marital Status, Dependents and Draft Eligibility

The marital status of respondents at the time the questionnaire was administered is shown in Table VI. The results show that slightly more than half (56.1 percent) of all the respondents were married whereas only 5.0 percent of 249 reported their marital status as widowed.

Percentage wise, slightly more of the white respondents (57.7 percent) indicated that they were married than Negro respondents (46.2 percent) or "all others" respondents (53.3 percent). Inspection of Table VI also reveals the differences between the races for divorced and separated respondents. Only 4.2 percent of the white respondents indicated their status as divorced while 10.0 percent of "all others" were divorced. The distribution of the three groups responding to separated was: white respondents, 1.0 percent; Negro respondents, 9.3 percent; and "all others," 3.7 percent. These percentages seem to support the findings of previous research on the family structure of Negroes, i.e., a higher proportion of Negro homes are broken than are white homes.

Another aspect of family structure for respondents considered in the study is reflected in Table VII, which illustrates the number of dependents reported by the respondents. Approximately one-fourth of the respondents said that they had three or four dependents. Nine hundred and six or 18.2 percent said that they had one dependent. The median for all respondents was one.

It can be seen that a relatively large proportion of "no responses" were reported. This appeared to include a number of persons who had no

TABLE VI

FREQUENCY AND PERCENTAGE ANALYSIS OF THE RELATIONSHIP
OF MARITAL STATUS TO RACE OF RESPONDENTS

Marital Status	Race							
	White		Negro		All Others		Total	
	N	%	N	%	N	%	N	%
Married	2,415	57.7	268	46.2	114	53.3	2,797	56.1
Single	1,514	36.2	181	31.2	70	32.7	1,765	35.2
Divorced	175	4.2	58	10.0	16	7.5	249	5.0
Separated	42	1.0	54	9.3	8	3.7	104	2.1
Widowed	1	0.0	0	0.0	1	0.0	2	0.0
No Response to Item	41	1.0	19	3.3	6	2.8	66	1.3
TOTAL	4,188	100.1*	580	100.0	215	100.0	4,983	99.7*

*Percentages may not add to 100.0 percent due to rounding.

TABLE VII

FREQUENCY AND PERCENTAGE ANALYSIS OF THE RELATIONSHIP
OF DEPENDENTS TO RACE OF RESPONDENTS

Number De of Dependents	Race							
	White		Negro		All Others		Total	
	N	%	N	%	N	%	N	%
One	767	18.3	107	18.4	32	15.0	906	18.2
Two	363	8.7	72	12.4	25	11.7	460	9.2
Three	550	13.1	65	11.2	17	7.9	632	12.7
Four	575	13.7	81	14.0	32	15.0	688	13.8
Five	345	8.2	51	8.8	23	10.7	419	8.4
Six or More	234	5.6	83	14.3	22	10.3	339	6.8
No Response to Item	1,354	32.3	121	20.9	64	29.7	1,539	30.8
TOTAL	4,188	99.9*	580	100.0	215	100.3*	4,983	99.9*

*Percentages may not add to 100.0 percent due to rounding.

dependents and the instrument was not sophisticated enough to allow for those without dependents. What was fairly clear in spite of the response complexity was that the majority of respondents had one, three, and four dependents.

There was not a great deal of difference in the distribution of dependents by race. Inspection reveals a difference of not more than nine percentage points on the number of dependents reported by each group with the exception of "no responses." There was a difference of 32.3 percent for white respondents compared to only 20.9 percent for Negro respondents; a difference of 11.4 percentage points. This difference does not seem unreasonable in view of the fact that Negroes normally have more dependents than whites. This is especially true for Negroes with less than a college education.

Only 570 or 20.6 percent of the male respondents said that they were eligible for the draft. This is less than one-fourth of the male population and indicates that over three-fourths of the male respondents are available for the civilian labor force.

Research Question 2: What is the overall employment status of these respondents; is their employment related to race and education; in what occupational areas did they have training; and is age and race related to type of occupational training?

Employment Status

The overall employment situation of the respondents is reported in Table VIII. Of the persons responding to the item, 2,051 were classified as employed full-time, with 863 employed part-time and 1,918 unemployed. The group employed full-time amounted to 40.7 percent;

while the part-time employed were 17.1 percent of the persons responding; and the unemployed group amounted to 38.0 percent. Meaningful comparison of these figures with reports for the nation are impossible due to data limitations. The percentage of respondents employed full-time (40.7 percent), however, appears to be considerably less than the reported average labor force participation rate (59.8 percent) for the general United States population in 1968.[1]

TABLE VIII

FREQUENCY AND PERCENTAGE ANALYSIS OF THE EMPLOYMENT STATUS OF RESPONDENT

Employment Status	Number	Percent
Full-Time	2,051	40.7
Part-Time	863	17.1
Unemployed	1,918	38.0
No Response to Item	213	4.2
TOTAL	5,045	100.0

The data in Table IX show the relationship between employment status and race. The percentage of white respondents employed full-time is 42.5 percent while only 29.4 percent of the Negro respondents indicated full-time employment. These percentages are considerably lower than the United States participation rate for whites (59.5 percent) and Negroes (61.7 percent) for 1968.[2]

TABLE IX

FREQUENCY AND PERCENTAGE ANALYSIS OF THE RELATIONSHIP OF EMPLOYMENT STATUS TO RACE OF RESPONDENTS

Employment Status	Race					
	White		Negro		All Others	
	N	%	N	%	N	%
Full-Time	1,778	42.5	170	29.4	85	39.7
Part-Time	725	17.3	97	16.8	32	15.0
Unemployed	1,532	36.6	277	47.8	87	40.0
No Response to Item	153	3.7	36	6.0	11	4.7
TOTAL	4,188	100.1*	580	100.0	215	100.1*

*Percentages may not add to 100.0 percent due to rounding.

Persons responding as unemployed by race were distributed as follows: white respondents, 36.6 percent; Negro respondents, 47.8 percent; and "all others," 40.7 percent. Very little difference is noted between the three groups for part-time employment patterns which ranged from 15.0 to 17.3 percent.

A more detailed analysis of the data was executed to provide further insight into possible relationships between employment status and race. Table X gives the frequency distribution, using responses only, from which a Chi-Square test was computed for the total population considering the relationship between employment status and race. The data were arranged into a 3 x 3 contingency table after cells were collapsed to yield an expected frequency of 5 or more for each cell.

Cells with the races of American Indian, Mexican American, and Oriental were collapsed into the "all others" group to yield an

expected frequency for each cell of 5 or more. The expected frequency for each cell was determined by multiplying the marginal frequencies common to that cell and dividing by the grand total of responses. The Chi-Square test was then calculated using the observed (actual) frequencies and expected frequencies.

TABLE X

A CHI-SQUARE ANALYSIS OF EMPLOYMENT STATUS IN RELATION TO RACE

Race	Employment Status		
	Full-Time	Part-Time	Unemployed
Negro	170	97	277
All Others	83	29	84
White	1,780	728	1,534
TOTAL	2,033	854	1,895
df=4 Sign .05=9.5	X^2=40.409	C=.0915	Significant

A Chi-Square of 40.409, as indicated in Table X, with 4 degrees of freedom was in excess of the .05 level of confidence, therefore suggesting a statistically significant difference between employment status and race. Inspection of Table X shows that white respondents tend to concentrate in the full-time status. The contingency coefficient (c) gives the degree of relationship as .0915 which is slightly greater than zero. In terms of the expected values, a disproportionately lower percentage of Negro respondents were employed full-time while a

slightly higher percentage of whites were employed full-time than expected. Thus, it is concluded that employment status and race are significantly related.

As shown in Table XI, a cross-analysis was made to discover whether there is a significant relationship between education and employment status of the respondents. Cells for 1, 2, 3, 4, and 5 years of education were collapsed in order to yield an expected frequency of at least 5. A Chi-Square was computed for this analysis. A table of critical values revealed that a Chi-Square of 623.348 with 14 degrees of freedom was in excess of the .05 level of confidence, suggesting a significant relationship between education and employment status.

Further examination of this significant relationship indicates that a markedly greater proportion of respondents with 12 years of education had full-time employment. This suggests that the higher level of educational attainment, the more apt respondents are to be employed full-time.

The relationship of age and employment is shown in Table XII. As expected, the 16-21 age group had the smallest percentage (7.0 percent) of respondents employed full-time and the largest percentage working part-time (32.5 percent). Inspection indicates that this group also had the largest percentage (55.9 percent) responding as unemployed. These results appear to be consistent with other findings for this age group.

The 31-40 and 41-50 age intervals were about evenly distributed with approximately 62.0 percent employed full-time in each group and 25.3 percent and 23.5 percent, respectively unemployed. Perhaps the

most significant point revealed by Table XII is the fact that the 16-21 age interval and the 61 and up age group are greatly underemployed and unemployed when compared to the total sample.

TABLE XI

A CHI-SQUARE ANALYSIS OF EMPLOYMENT STATUS IN RELATION TO EDUCATIONAL ATTAINMENT

Educational Attainment	Employment Status		
	Full-Time	Part-Time	Unemployed
1 - 5 years	32	5	13
6 years	12	6	8
7 years	23	4	17
8 years	100	30	56
9 years	78	70	169
10 years	151	222	487
11 years	142	251	368
12 years	1,043	212	623
TOTAL	1,581	800	1,741

df=14 Sign .05=27.7 X^2=623.348 C=.362 Significant

Additional aspects of the employment status of respondents on the basis of sex is summarized in Table XIII. The data indicate that slightly more than half of the males (55.2 percent) responding were employed full-time whereas less than one-fourth (22.6 percent) of the female respondents were working full time. These percentages were

TABLE XII

FREQUENCY AND PERCENTAGE ANALYSIS OF THE RELATIONSHIP OF AGE GROUP TO EMPLOYMENT STATUS OF RESPONDENTS

Employment Status	Age Group 16-21 N	%	22-30 N	%	31-40 N	%	41-50 N	%	51-60 N	%	61 & Up N	%	Total N	%
Full-Time	115	7.0	370	48.0	909	62.6	497	62.4	139	58.4	6	14.3	2,036	41.1
Part-Time	538	32.5	65	8.4	134	9.2	75	9.4	30	12.6	6	14.3	848	17.1
Unemployed	925	55.9	323	41.9	368	25.3	187	23.5	54	22.7	23	54.8	1,880	37.9
No Response to Item	76	4.6	14	1.7	42	2.9	37	4.6	15	6.3	7	16.7	191	3.8
TOTAL	1,654	100.0	772	100.0	1,453	100.0	796	99.9*	235	100.0	42	100.1*	4,952	99.9*

*Percentages may not add to 100.0 percent due to rounding.

somewhat lower than those reported for the average labor force participation rates in 1968 for persons 16 years and over. For men the average labor participation rates for 1968 were 79.7 percent. The 22.6 percent for female respondents is much less than the 41.1 percent U. S. rate in 1968 and the 42.5 percent projected for 1975.[3] Although caution must be exercised in comparing the employment status of respondents in the study with the U. S. labor force participation rate, the difference is large enough to warrant close attention.

TABLE XIII

FREQUENCY AND PERCENTAGE ANALYSIS OF THE RELATIONSHIP OF EMPLOYMENT STATUS TO SEX OF RESPONDENTS

Employment Status	Sex			
	Male		Female	
	N	%	N	%
Full-Time	1,531	55.2	501	22.6
Part-Time	465	16.8	391	17.6
Unemployed	683	24.6	1,220	55.1
No Response to Item	94	3.4	104	4.7
TOTAL	2,773	100.0	2,216	100.0

Reviewing the percentage of males and females unemployed, the data in Table XIII show that 24.6 percent of the males reported they were unemployed while 55.1 percent of the females responded as

unemployed. Both male and female respondents were about evenly distributed in the percentage working part-time with 16.8 percent and 17.6 percent, respectively.

Occupational Background

One of the characteristics of underdeveloped human resources is the lack of adequate job training. Generally, persons with a marketable skill are in a much better position to compete in the labor market than those without skills. For this reason, the study was concerned with the job training background of respondents. The presence or absence of job training was obtained for responses to the item--"I have job training." Due to data limitations, it was impossible to differentiate between formal, informal, or on-the-job training. Forty-five percent or 2,267 persons reported job training while 40.2 percent or 2,027 indicated no job training. Seven hundred fifty-one persons did not respond to the item.

The publication entitled, Standard Terminology for Curriculum and Instruction in Local and State School Systems was utilized to categorize the type of job training reported by respondents. Table XIV presents the type of job training in terms of occupational program areas. Inspection shows that the greatest number of respondents reported job training in the areas of office education (831) and trades and industry (838). Less than 5 percent of the respondents reported job training in the other occupational areas. Only a few professed training in agriculture (25) and home economics (13).

The data in Table XIV indicate that 2,609 or 51.7 percent of the respondents did not respond to the item. Since 2,027 respondents

reported having no job training earlier, it is assumed that at least this many did not respond or indicate some type of job training. A more accurate reflection for the number of no responses for Table XIV would be the difference between the responses for no job training and no response (2,609 - 2,027) which is 582. Regardless of the complexity of responses, the data show that approximately one-half of the respondents do not have job training.

TABLE XIV

FREQUENCY AND PERCENTAGE ANALYSIS OF RESPONDENTS' OCCUPATIONAL TRAINING BACKGROUND BY PROGRAM SERVICE DIVISIONS

Type of Occupational Training	Number	Percent
Agriculture	25	0.5
Distributive & Marketing	110	2.2
Health	86	1.7
Home Economics	13	0.3
Office	831	16.5
Technical	204	4.0
Trades & Industry	838	16.6
Professional	114	2.3
Other	215	4.3
No Response to Item	2,609	51.7
TOTAL	2,045	100.1*

*Percentage may not add to 100.0 percent due to rounding.

The data were arranged to provide insight into the relationship of age to occupational training. In many cases young persons are underdeveloped because of a lack of occupational training. This holds true also for the older worker who is frequently a high school dropout.

Information indicating the relationship of age of respondents to type of occupational training is given in Table XV. The data were collapsed so that each cell would have an expected frequency greater than 5. This resulted in four age ranges for six occupational groupings. A Chi-Square test was used to treat the raw scores of Table XV to determine if a statistically significant difference existed in the relationship of age group to type of occupational training. The Chi-Square of 95.471 with 15 degrees of freedom was in excess of the .05 level. A statistically significant difference did exist between type of occupational training and respondents age. Reexamining the expected values reveals very little difference between age groups for the trades and industry program service division. It appears that a disproportionately higher percentage of the 22-30 age interval had office training than the 41 and up age group.

To see if there was a statistically significant difference in the relationship of race to type of occupational training, a Chi-Square analysis was made for the frequencies in Table XVI. A Chi-Square of 37.377 with 6 degrees of freedom was in excess of the .05 level of confidence.

It is therefore concluded that a statistically significant difference did exist between type of occupational training and race. Upon studying the expected values, a disproportionately lower percentage of

TABLE XV

A-CHI SQUARE ANALYSIS OF TYPE OF OCCUPATIONAL TRAINING IN RELATION TO AGE GROUP

	Type of Occupational Training					
Age Group	Agriculture, Distributive, Health, & Home Economics	Office	Technical	Trades & Industry	Professional	Other
16-21	91	253	47	263	4	69
22-30	38	172	35	137	16	16
31-40	47	264	79	277	57	50
41 & Up	53	139	43	158	37	38
TOTAL	229	828	204	835	114	173
df=15	Sign .05=25.0	X^2=95.471	C=.196		Significant	

TABLE XVI

A CHI-SQUARE ANALYSIS OF TYPE OF OCCUPATIONAL TRAINING IN RELATION TO RACE

	Type of Occupational Training						
Race	Agriculture & Distributive	Health & Home Economics	Office	Technical	Trades & Industry	Professional	Other
Negro*	11	26	120	22	100	4	12
White*	122	72	701	181	734	109	162
TOTAL	133	98	821	203	834	113	174

df=6	Sign .05=12.6	X^2=37.377	C=.124	Significant

*After the "all others" category was collapsed, the Negro and white race still represented more than 95.0 percent for this analysis.

Negro respondents had training in the agriculture and distributive areas while a disproportionately higher percentage fell into the health and home economics category. The expected frequency of Negro respondents in the professional category was extremely low.

Research Question 3: What is the income of these respondents; what is their major source of income; is race related to income; and is there a relationship between age, sex, and income for the respondents?

Income

The weekly income reported by respondents is illustrated in Table XVII Approximately 28.0 percent or 1,392 of the respondents said that they earned less than $30 per week, while another 10.1 percent or 509 reported earning from $30 to $50 per week. A little over 34.0 percent of the respondents said that their weekly income was more than $75 per week. It appears that the respondents who earned less than $50 per week are well within the poverty level of $3,000 per year. It is these persons most in need of job training and meaningful employment. Although the male-female differential is important when studying income, the median weekly income for those responding is in the $50 to $75 per week interval. When computed on a yearly basis, the median income would range from $2,600 to $3,900.

It seems that the respondents considered in the study are economically poor relative to the general U. S. population. Median money income for the United States was $4,883 in 1967.[4]

TABLE XVII

FREQUENCY AND PERCENTAGE ANALYSIS OF THE WEEKLY INCOME OF RESPONDENTS

Weekly Income (Dollars)	Number	Percent
Less than 30	1,392	27.6
30 - 50	509	10.1
50 - 75	436	8.6
75 & Up	1,742	34.5
No Response to Item	966	19.1
TOTAL	5,045	99.9*

*Percentage may not add to 100.0 percent due to rounding.

Major Source of Income

Of interest to the study was the source of income for respondents. Table XVIII illustrates the various sources of income obtained from responses to the item--"Major source of income."

More than half (56.7 percent or 2,858) of the persons responding indicated wages as the major source of income. It is significant to note that only 3.8 percent (189) of the respondents reported receiving some type of public assistance. A slightly lower percentage (3.5 percent) was on social security. These percentages support the fact that the majority of respondents are in the working age population.

TABLE XVIII

FREQUENCY AND PERCENTAGE ANALYSIS OF THE MAJOR SOURCE OF INCOME FOR RESPONDENTS

Major Source of Income	Number	Percent
Wages	2,858	56.7
Other	1,125	22.3
Public Assistance	189	3.8
Social Security	174	3.5
No Response to Item	699	13.8
TOTAL	5,045	100.1*

*Percentage may not add to 100.0 percent due to rounding.

Race and Income

While the above data reflect the major source of income for the sample population, the data in Table XIX point out some striking differences in the weekly income levels of white and Negro respondents. Some of the comparative statistics are as follows: Only 14.8 percent or 86 of the Negro respondents reported earning $75 and over per week as compared to 37.6 percent or 1,574 of the white respondents; 8.0 percent of the white respondents earn from $50 to $75 per week as compared to 13.8 percent of the Negro respondents; and 20.0 percent of Negro respondents earn from $30 to $50 per week as compared to only 8.5 percent of the white respondents. It is possible that the large percentage

of Negro female respondents caused the lower weekly income for Negroes since the labor force participation rate for females is considerably less than that for males.

TABLE XIX

FREQUENCY AND PERCENTAGE ANALYSIS OF THE RELATIONSHIP OF WEEKLY INCOME TO RACE OF RESPONDENTS

Weekly Income (Dollars)	Race					
	White		Negro		All Others	
	N	%	N	%	N	%
Less than 30	1,162	27.8	169	29.1	51	23.8
30 - 50	357	8.5	116	20.0	29	13.6
50 - 75	333	8.0	80	13.8	21	9.8
75 & Up	1,574	37.6	86	14.8	67	31.3
No Response to Item	762	18.2	129	22.2	47	21.5
TOTAL	4,188	100.1*	580	99.9*	215	100.0

*Percentages may not add to 100.0 percent due to rounding.

Any comparison made places the Negro respondents in a disadvantageous economic situation with one exception, for a weekly income of $30 or less. Inspection of Table XIX indicate that there were no real differences across races (27.8, 29.1 and 23.8 percent respectively).

The data given in Table XX is a Chi-Square Analysis to determine whether differences between income and race were due to chance variation. The Chi-Square test was made on the frequency of responses only, and cells were collapsed to give an expected frequency of at least 5.

TABLE XX

A CHI-SQUARE ANALYSIS OF WEEKLY INCOME IN RELATION TO RACE

Race	Weekly Income (Dollars)			
	Less Than 30	30-50	50-75	75 & Up
White	1,163	358	335	1,574
Negro	169	116	80	86
All Others	50	28	19	65
TOTAL	1,382	502	434	1,725

df=6 Sign .05=12.6 X^2=171.436 C=.202 Significant

A Chi-Square of 171.436 with 6 degrees of freedom was in excess of the .05 level of confidence, indicating a statistically significant difference between income and race. Thus, it is concluded that these differences were not due to chance variation.

Education and Income

As shown in Table XXI, a Chi-Square analysis was made to discover if a significant difference exists between education and income of the respondents. The test was computed on the actual responses, and grade levels were combined to yield cells with an expected frequency of at least 5. This resulted in grades 1-5 being placed in one cell and grades 6-7 in another cell.

The results of Table XXI reveal that a Chi-Square of 803.346 with 18 degrees of freedom is in excess of the .05 level of confidence.

This suggests that education is significantly related to income. The contingency coefficient (c) shows the degree of relationship as .434 or a little less than .5. In terms of expected values, a disproportionately higher percentage of respondents with twelve years of education earned over $75 per week as compared to respondents with less than twelve years of education. The implication is that high school graduates are more apt to earn higher weekly income than dropouts.

TABLE XXI

A CHI-SQUARE ANALYSIS OF EDUCATION
IN RELATION TO WEEKLY INCOME

Educational Level	Weekly Income			
	Less Than 30	30-50	50-75	75 & Up
1-5	7	7	9	21
6-7	8	10	16	30
8	35	23	26	94
9	128	44	29	57
10	446	96	43	107
11	384	105	58	99
12	294	187	219	876
TOTAL	1,302	472	400	1,284

df=18 Sign .05=28.9 X^2=803.346 C=.434 Significant

Age, Sex and Income

The relationship between income and age is presented in Table XXII. It reveals that the 16-21 age group is the most economically disadvantaged group with 58.4 percent or 966 respondents earning less than $30 per week. Only 2.9 percent reported a weekly income of over $75 per week whereas another 4.4 percent reported a weekly income of $50 to $75 per week. These data clearly indicate that younger respondents contribute disproportionately to those having low weekly incomes. Furthermore, the results seem to be consistent with the fact that age (youth) is one characteristic associated with underdeveloped human resources.

Inspection of the table indicates that a greater percentage of respondents in the 31-40 and 41-50 age intervals earned over $75 per week. The 31-40 age group showed the smallest percentage (9.6 percent) earning less than $30. One can not imply any cause and effect relationship here, but the relationship of age to income is interesting to note.

A comparison of weekly income among males and females as shown in Table XXIII will also reveal major differences. Fifty-three percent of the males reported a weekly income of over $75 per week as compared to only 11.9 percent of the female respondents. Approximately 12.0 percent of the female respondents reported earning from $50 to $75 per week as compared to 7.7 percent of the male respondents; a difference of only about 4.3 percentage points. About the same proportion of males as females earned less than $30 per week (24.7 percent and 31.7 percent, respectively). The data indicate that there is a relationship between sex and income for the respondents.

TABLE XXII

FREQUENCY AND PERCENTAGE ANALYSIS OF THE RELATIONSHIP
OF AGE GROUP TO WEEKLY INCOME

Weekly Income (Dollars)	Age Group											
	16-21		22-30		31-40		41-50		51-60		60 & Up	
	N	%	N	%	N	%	N	%	N	%	N	%
Under 30	966	58.4	121	15.7	140	9.6	93	11.7	26	10.9	9	21.4
30-50	193	11.7	91	11.8	107	7.4	77	9.7	29	12.2	6	14.3
50-75	73	4.4	124	16.1	151	10.4	60	7.5	19	8.0	5	11.9
75 & Over	48	2.9	306	39.6	809	55.7	438	55.0	125	52.5	10	23.8
No Response to Item	374	22.6	130	16.8	246	16.9	128	16.1	39	16.4	12	28.6
TOTAL	1,654	100.0	772	100.0	1,453	100.0	796	100.0	238	100.0	42	100.0

TABLE XXIII

FREQUENCY AND PERCENTAGE ANALYSIS OF THE RELATIONSHIP OF SEX TO WEEKLY INCOME

Weekly Income (Dollars)	Sex			
	Male		Female	
	N	%	N	%
Less Than 30	686	24.7	703	31.7
30 - 50	213	7.7	288	13.0
50 - 75	169	6.1	256	11.6
75 & Up	1,468	53.0	264	11.9
No Response to Item	237	8.5	705	31.8
TOTAL	2,773	100.0	2,216	100.0

Research Question 4: How many of the respondents have training but are employed part-time; how many have training but are unemployed; and how many do not have training but desire training?

The data presented here are derived mostly from a set of straight tabulations run separately for each of the three subgroups mentioned in the above research question. The intent of this section is to present a brief profile of the respondents in each subgroup.

Those with Training Employed Part-Time

Of the 424 respondents categorized with training employed part-time, 227 were men and 196 were women. There was one no response to the item. The age distribution of these respondents is reported in Table XXIV. Inspection reveals that these respondents are a relatively

young group with 69.8 percent or 296 in the 16-21 age interval. Only 11 of the respondents were over 21 years old.

TABLE XXIV

FREQUENCY AND PERCENTAGE ANALYSIS OF THE AGE OF RESPONDENTS WITH TRAINING EMPLOYED PART-TIME

Age Group	Number	Percent
16 - 21	296	69.8
22 - 30	31	7.3
31 - 40	59	13.9
41 - 50	23	5.4
51 - 60	9	2.1
61 & Up	2	0.5
No Response to Item	4	0.9
TOTAL	424	99.9*

*Percentage may not add to 100.0 percent due to rounding.

As shown in Table XXV, the majority (89.4 percent or 379) of respondents employed part-time were white. The distribution of the other races was: Negro, 26; American Indian, 12; Mexican American, 2; and Oriental, 1.

Only eight of the 424 respondents reported less than 8 years of school while 276 indicated from 9 to 11 years of school and 105 responded as high school graduates. Thirty-five did not respond to the

item. When college was considered, only 45 indicated having from 1 to 4 years of college. Only eleven respondents reported having occupataional training in the agriculture area whereas 346 reported training in the distributive and marketing area.

TABLE XXV

FREQUENCY AND PERCENTAGE ANALYSIS OF THE RACE OF RESPONDENTS WITH TRAINING EMPLOYED PART-TIME

Race	Number	Percent
White	379	89.4
Negro	26	6.1
American Indian	12	2.8
Mexican American	2	0.5
Oriental	1	0.2
No Response to Item	4	0.9
TOTAL	424	99.9*

*Percentage may not add to 100.0 percent due to rounding.

Table XXVI summarizes the weekly income of respondents employed part-time with training. As expected, the weekly income of these respondents tended to be concentrated quite heavily in the lower intervals. The seriousness of underemployment can be examined by comparing the weekly income of respondents working part-time with training with the income of the study sample.

TABLE XXVI

FREQUENCY AND PERCENTAGE ANALYSIS OF WEEKLY INCOME: RESPONDENTS WITH TRAINING EMPLOYED PART-TIME AND STUDY SAMPLE

Weekly Income (Dollars)	Number	Percent	Percent of All Respondents
Less Than 30	227	53.5	27.6
30 - 50	103	24.3	10.1
50 - 75	44	10.4	8.6
75 & Up	34	8.0	34.5
No Response to Item	16	3.8	19.1
TOTAL	424	100.0	99.9*

*Percentage may not add to 100.0 percent due to rounding.

Inspection of Table XXVI shows that 53.5 percent of the respondents employed part-time earned less than $30 per week compared to only 27.6 percent for the study sample. The most notable difference in the two distributions is the low percentage of respondents with training who are working part-time earning over $75 per week; only 8.0 percent compared to 34.5 percent for the sample.

Unemployed with Training

Seven hundred twenty-two persons were categorized as unemployed with training. There were almost twice as many females (468) as males (249). Five persons elected not to respond to the item.

That women obtain training and marry could explain some of the difference for the larger proportion of women who are unemployed with

training. Another explanation is that many women drop out of the labor force until school age children are a certain age. Afterwards, they re-enter the labor force. Also, those respondents who were unemployed with training are not in the labor force group, and normally more females than males are not in the labor force.

Table XXVII shows that the respondents unemployed with training are a young group with 332 or 46.0 percent in the 16-21 age group. One hundred thirty-six or 18.8 percent reported their age in the 22-30 interval. These percentages again point out the difficulty young people have in obtaining employment, even with training.

TABLE XXVII

FREQUENCY AND PERCENTAGE ANALYSIS OF THE AGE OF RESPONDENTS UNEMPLOYED WITH TRAINING

Age Group	Number	Percent
16 - 21	332	46.0
22 - 30	136	18.8
31 - 40	149	20.6
41 - 50	83	11.5
51 - 60	14	1.9
61 & Up	2	0.3
No Response to Item	6	0.8
TOTAL	722	99.9*

*Percentage may not add to 100.0 percent due to rounding.

Of the 722 respondents with training but unemployed, 596 or 82.5 percent were white; 89 or 12.3 percent were Negro; 29 or 4.0 percent were American Indian; 2 were Mexican American; and 1 was an Oriental. Five did not indicate their race.

The educational background of the respondents ranged from one year of elementary school to four years of college. Three hundred twenty-five were high school graduates while another 152 had completed 11 years of school. Ninety-three percent or 635 reported job training in the distribution and marketing area while only 2 indicated agricultural training. This could be a result of the large proportion of females unemployed with training. Normally, distribution is an area heavily concentrated with females.

Those Without Training But Desire Training

Out of the 1,432 persons categorized as having no training but desire training, 717 or 50.1 percent were men and 700 or 48.9 were women. Fifteen did not respond to the item.

The age distribution of respondents without training who desire training is summarized in Table XXVIII. The majority of the respondents were under 50 years old with 585 or 40.9 percent in the 16-21 age interval. Inspection also reveals that 253 or 17.7 percent were 22-30 years old and 329 or 23.0 percent were in the 31-40 age interval. The most significant fact revealed by the table is that the group is relatively young. It seems like the respondents in this group could very well be motivated to enter and succeed in a training program based upon their age.

TABLE XXVIII

FREQUENCY AND PERCENTAGE ANALYSIS OF THE AGE DISTRIBUTION OF RESPONDENTS WITHOUT TRAINING WHO DESIRE TRAINING

Age Group	Number	Percent
16 - 21	585	40.9
22 - 30	253	17.7
31 - 40	329	23.0
41 - 50	170	11.9
51 - 60	59	4.1
61 & Up	9	0.6
No Response to Item	27	1.9
TOTAL	1,432	100.1*

*Percentage may not add to 100.0 percent due to rounding.

This is not intended to imply that older persons can not succeed in a training program. The older person, however, normally has more responsibilities and probably would not be as apt to find time to attend a program.

The race of respondents without training but desirous of training is presented in Table XXIX. Of the persons responding, 1,077 or 75.2 percent were white; 253 or 17.7 percent were Negro; 73 were American Indian; and 4 each were Mexican American and Oriental.

It is significant to note that 773 or 54.0 percent of the respondents were unemployed while 226 or 15.8 percent worker part-time. Only 27.5 percent or 394 reported full-time employment.

TABLE XXIX

FREQUENCY AND PERCENTAGE ANALYSIS OF RACE OF RESPONDENTS WITHOUT TRAINING WHO DESIRE TRAINING

Race	Number	Percent
White	1,077	75.2
Negro	253	17.7
American Indian	73	5.1
Mexican American	4	0.3
Oriental	4	0.3
No Response to Item	21	1.5
TOTAL	1,432	100.1*

*Percentage may not add to 100.0 percent due to rounding.

The educational background of respondents without training who desire training is shown in Table XXX. Inspection reveals that the majority of the respondents completed from 9 to 12 years of school. This could very well be one measure of their success in a vocational-technical training program.

Only about 9 percent of this group had less than eight years of school. The distribution for grades 9-12 was: 9 years, 160 or 11.2 percent; 10 years, 374 or 26.1 percent; 11 years, 250 or 17.5 percent; and 12 years, 432 or 30.2 percent.

TABLE XXX

FREQUENCY AND PERCENTAGE ANALYSIS OF EDUCATIONAL ATTAINMENT OF RESPONDENTS WITHOUT TRAINING WHO DESIRE TRAINING

Educational Attainment	Number	Percent
1 year	1	0.1
2 years	1	0.1
3 years	4	0.3
4 years	7	0.5
5 years	8	0.6
6 years	8	0.6
7 years	22	1.5
8 years	80	5.6
9 years	160	11.2
10 years	374	26.1
11 years	250	17.5
12 years	432	30.2
No Response to Item	85	5.9
TOTAL	1,432	100.2*

*Percentage may not add to 100.0 percent due to rounding.

The ability of a person to attend a training program is dependent, in part, upon the income one earns. Table XXXI summarizes the weekly income for respondents without training who desire training. A large

proportion (503) reported a weekly income of less than $30 per week. Two hundred ninety-eight indicated that their weekly income was over $75 per week.

TABLE XXXI

FREQUENCY AND PERCENTAGE ANALYSIS OF WEEKLY INCOME OF RESPONDENTS WITHOUT TRAINING WHO DESIRE TRAINING

Weekly Income (Dollars)	Number	Percent
Less Than 30	503	35.1
30 - 50	181	12.6
50 - 75	126	8.8
75 & Up	298	20.8
No Response to Item	324	22.6
TOTAL	1,432	99.9*

*Percentage may not add to 100.0 percent due to rounding.

Research Question 5: What reactions have the subsample of respondents about the Project's attempt to identify persons in need of training and employment, and what is their present employment status?

The statistics cited previously document the results of the Underdeveloped Human Resources Project's survey to identify persons in need and desirous of job training and employment opportunities. These statistics, however, can not reveal the significance of the

survey to the lives of the respondents. This significance must be expressed by the respondents themselves.

In an attempt to acquire some knowledge of how the respondents felt about the survey, data were collected from 41 personal interviews conducted by the writer in June of 1970. The writer asked respondents their opinion about the survey and requested that they express their criticisms, general feelings, and suggestions.

One question of interest to the study was--"How did you find out about this survey?" Table XXXII shows the responses of interview respondents to the question. Of the 41 interview respondents, 15 gave elementary school as the source for learning about the survey. Twelve reported learning about the survey from Jobs Unlimited which is a community action agency. The newspaper was indicated by two interview respondents while one reported television as a source of information.

The interview respondents quite frequently obtained the questionnaire from sources previously mentioned as shown in Table XXXIII. Thirteen of the 41 interview respondents reported obtaining the questionnaire from an elementary school where a child in the family attended. Jobs Unlimited was indicated as the source by an additional 13 respondents. Other sources given were: the Tulsa Chamber of Commerce, 10; Oklahoma State Employment Service, 3; child care center, 1; and barbershop, 1.

Interestingly, 40 of the 41 interview respondents reported without reservations that they thought the survey was a worthwhile effort. One interview respondent was not sure about the merits of the survey. In each case interview respondents related to the writer that they

completed the questionnaire in hope of getting some type of training or a job by which their living conditions could be improved.

TABLE XXXII

SOURCE OF INFORMATION ABOUT THE SURVEY FOR INTERVIEW RESPONDENTS

Source	Number
Elementary Schools	15
Jobs Unlimited	12
Friends	8
Tulsa Chamber of Commerce	2
Newspapers	2
Television	1
Child Care Center	1
TOTAL	41

Perhaps the best way to present the opinion of the interview respondents is to simply quote some of their most revealing comments pertaining to the survey. The reader should bear in mind that the personal interviews were conducted from five to seven months after respondents completed the questionnaires.

TABLE XXXIII

SOURCE FROM WHICH INTERVIEW RESPONDENTS OBTAINED QUESTIONNAIRES

Source	Number
Elementary Schools	13
Jobs Unlimited	13
Tulsa Chamber of Commerce	10
Oklahoma State Employment Service	3
Child Care Center	1
Barbershop	1
TOTAL	41

Attitude of interview respondents concerning the lack of follow-up were expressed in the following words:

> When I mailed it in /questionnaire/ I was hoping that they could help me get a job, but after a month or two I didn't think anyone would call on me.
>
> Had not thought too much about it after about three months. You kind of surprised me.
>
> Thought that I would eventually be contacted but had no idea it would be this long.
>
> You surprised me because I had really forgot about it. I had thought that I would hear from someone in a month.
>
> Hoped that something would be done to help me get a better job. Never heard from anyone until you called.
>
> Thought that I would hear from someone right after I filled the form /questionnaire/ out. Never expected it to be this long.

When I mailed this /questionnaire/ in I was under the impression that I would be notified in two or three weeks.

I thought that at least I should have been called and notified of some kind of training program.

First thought that it was something that could benefit everyone. I was told that someone would contact me in a matter of weeks but never did hear from anyone. Thought it would benefit community in leading to a job and training for some people.

Just forgot about it. I thought that they were just picking people they wanted to go to training.

Other attitudes and suggestions were expressed as follows:

I think it was a good thing. It's so hard to try and find a job on your own. Need to do more than get our names and qualifications.

Everybody should try to better their condition. This might be one way to do it.

I think it would be wonderful if people were contacted that filled these things out. Should contact people and let them know if they are still being considered for something.

I think it is a real good idea to try and help people in need of a job and some kind of training.

Think it is good to have some type of manpower development to help people get a job and to become skilled and obtain a job and have some knowledge about the things that are going on.

Really don't think it was a waste of time but you have to try if you want to get somewhere. Hope that something like this can get going because there is a need for this kind of service.

Should still check with some of these people. Lot like me that can't find anything and don't have enough training to get a job . . . . Something should be done to help people like me learn a trade. I have looked everywhere for a job and haven't found one yet.

People like myself should try to upgrade themselves. Some of the people should be placed in some kind of training programs. Many could profit.

Everything changes. Somebody had a good idea when they started /the survey/. If they didn't have enough money to carry it out they shouldn't even started it.

Should do something with the information now.

It helped but there were no results. It seems like it was don't call us, we will call you.

Glad to think that someone has an interest about whether people have a job . . . . What happens to this information now? Who does it benefit?

I feel like if it is any training open or anything that comes available then they should let some of these people know about it. People should be contacted some are still interested in training and a job.

Well really what I thought about it was that it would help the Negro to get a better job here in Tulsa plus I was unfortunate to not be able to go to school and get the kind of skills needed. Anybody that can get into some kind of training program is going to be ahead of the person without it.

It seems like it was worth the time if something else is done. If nothing comes of it it isn't any good.

I would like to see something like this materialize. It could be a pretty good project.

Need someway to speed up the process you know. Let us know that you have processed our applications /questionnaires/ and still have them on file.

Just need to try and help some of these people. At least give someone some help.

These comments demonstrate the significance of the Underdeveloped Human Resources Survey to the lives of the interview respondents. Of all the comments, three major observations seem to merit some consideration. The first is that interview respondents had built up their expectations that they would be contacted about job training and employment. The second observation involves the time lapse, and is directly related to the first observation. The interview respondents reported that too much time had transpired without any follow-up.

The final observation pointed in the direction of the future--what will be done since the data are collected. The general concensus

of interview respondents was to provide action in the form of follow-up for job training and employment opportunities. It seems obvious that many of the respondents still felt the need for a better match between their capabilities and present job situation.

In an attempt to ascertain the present employment status of the interview respondents, the writer posed questions to see what changes if any had occurred. Fifteen or 36.6 percent indicated that there had been a change in their employment status, whereas 26 or 63.4 percent reported no change in their status. Table XXXIV summarizes the employment status of interview respondents at the time questionnaire was completed, compared to the time of personal interview.

It is significant to note, percentage wise, that 53.7 percent (22) reported being unemployed at the time the questionnaire was completed compared to only 31.7 percent (13) at the time of personal interview. The data in Table XXXIV also indicate that 16 (39.0 percent) of the interview respondents were employed full-time when the questionnaire was completed while 23 (56.1 percent) reported being employed full-time at the time of interview. Five respondents reported part-time work at the time of personal interview compared to three when the questionnaire was completed.

Interestingly, 36 or 87.8 percent of the 41 interview respondents said they were interested in job training. This compared favorably to the 3,437 or 68.1 percent of the study sample who said that they would take job training.

TABLE XXXIV

FREQUENCY AND PERCENTAGE ANALYSIS OF THE EMPLOYMENT STATUS OF INTERVIEW RESPONDENTS: AT TIME OF COMPLETION OF QUESTIONNAIRE AND AT TIME OF PERSONAL INTERVIEW

Employment Status	At Time of Questionnaire N	%	At Time of Personal Interview N	%
Employed Full-Time	16	39.0	23	56.1
Employed Part-Time	3	7.3	5	12.2
Unemployed	22	53.7	13	31.7
TOTAL	41	100.0	41	100.0

Summary of Findings

This section summarizes the findings based on the analyses and interpretation of data posed by the research questions. Findings relative to the characteristics of respondents are:

1. Taken together, 58.1 percent of the respondents were men; the median age interval was 31-40 years; 56.1 percent were married; 38.7 percent were high school graduates; and the median years of school completed was 11. Of the 5,045 respondents on race, 4,188 were white; 580 were Negro; 189 were American Indian; 15 were Mexican American; 11 were Oriental; and 62 did not respond to the item on race. Sex and education are two of the characteristics whereby white and Negro respondents differed. Slightly more than 58.0 percent of the white respondents were male (58.1 percent), while only 34.7 percent of the

Negro respondents were male. Forty-five percent of the Negro respondents completed high school, whereas 37.9 percent of the white respondents fell into this group.

2. As a group the respondents provided employment information which resulted in the following groupings: Two thousand and fifty one employed full-time; 863 employed part-time; and 1,918 or 38.0 percent unemployed. The following patterns were revealed for employment status in relation to race, age, and sex: Only 29.4 percent of Negro respondents were employed full-time compared to 42.5 percent for white respondents; slightly more than 55.0 percent of the 16-21 age group was unemployed (55.9 percent) while only 7.0 percent of this same group was employed full-time; and about twice the percentage of male respondents (55.2 percent) were employed full-time as were female respondents (22.6 percent).

3. Forty-five percent or 2,267 persons had some type of job training, while 40.2 percent or 2,027 respondents had no job training; and 831 had training in the office education area and 838 had occupational training in the trades and industry area.

4. The median weekly income for persons responding was from $50 to $75 per week, or on a yearly basis the median income would be from $2,600 to $3,900. More than half of the respondents indicated wages as their major source of income (56.7 percent). Only 14.8 percent of the Negro respondents earned over $75 per week as compared to 37.6 percent of the white respondents. For respondents in the 16-21 age interval, 58.4 percent or 966 earned less than $30 per week while only 2.9 percent earned more than $75 per week. Fifty-three percent of the male

respondents earned over $75 per week while 11.9 percent of the females fell in this category.

5. There were 724 respondents categorized as having training but working only part-time. Two hundred twenty-seven were men and 196 were women while one person did not respond to the race item on the questionnaire.

6. Seven hundred twenty-two respondents were categorized as unemployed with training. There were 468 females and 249 males. This group tended to be relatively young with 332 or 46.0 percent in the 16-21 age interval and 136 or 18.8 percent in the 22-30 age group.

7. Out of the 5,045 respondents, 1,432 were categorized as having no training but desirous of job training. Almost one-half were men (717 or 50.1 percent). This group is relatively young with 40.9 percent or 585 between 16 and 21 years old. There were 1,077 whites; 253 Negroes; 73 American Indians; 4 Mexican Americans; and 4 Orientals. Approximately 85.0 percent of the respondents in this category had from 9-12 years of school. Seven hundred seventy-three or 54.0 percent were unemployed while another 226 or 15.8 percent were employed part-time.

8. Out of 41 personal interviews with a stratified proportionate random sample, 40 of the interview respondents indicated to the writer that they felt the survey was a worthwhile effort. A major criticism of interview respondents was that no one had communicated with them since the questionnaire was completed. There seems to have been a general consensus that respondents should be followed-up with job training and employment opportunities. Twenty-three of the 41 interview respondents were employed full-time and 5 were employed part-time.

Thirty-six or 87.8 percent of the interview respondents said they were interested in job training as compared to 3,437 or 68.1 percent of the total sample.

The most important findings of the study relative to the relationship between various variables are:

1. There is a significant relationship between the respondents' employment status and the following variables: race and educational attainment. A disproportionately lower percentage of Negro respondents were employed full-time with reference to expected values while a slightly higher percentage of white respondents were employed full-time in terms of expected values.

2. There is a significant relationship between the respondents' type of occupational training and the following variables: age and race.

3. There is a significant relationship between the respondents income and the following variables: race; education; age; and sex. Negro respondents earned less per week than white respondents. Respondents in the 16-21 age interval had a disproportionately higher percentage earning less than $30 per week as compared to the other age intervals. Females reported a lower weekly income that males.

FOOTNOTES

[1]Sophia C. Travis, "The U.S. Labor Force: Projections to 1985," Monthly Labor Review, XCIII (May, 1970), 4.

[2]Ibid.

[3]Ibid.

[4]Calculated from Statistical Abstract of the United States: 1969, p. 327.

CHAPTER V

CONCLUSIONS AND IMPLICATIONS

This chapter will be concerned with four areas: (1) a review of the study, (2) limitations, (3) conclusions, and (4) implications.

Review of the Study

The problem with which this study was concerned was the lack of descriptive information relative to methods used to identify underdeveloped human resources for job training and employment. In many cases, the development of jobs and community manpower training programs has been impeded by a deficiency of descriptive information on the persons underdeveloped in terms of job training.

The primary purpose of this study was to provide basic manpower information pertaining to the methods used in an underdeveloped human resources project in the metropolitan Tulsa, Oklahoma area, and to interpret the implications of these findings for statewide manpower planning. To accomplish the purpose, the study was primarily directed toward providing a description of the methodology used in the Underdeveloped Human Resources Survey and a profile of the respondents to the survey by an analysis of data contributed directly by these individuals. The analysis has generated a description of the respondents in terms of personal, racial, family, education, employment, and occupational characteristics.

Data for this study were derived from questionnaires and personal interviews. The instruments developed for this study consisted of a one-page, structured questionnaire and an interview guide. The statistical techniques included presenting data of a general nature in percentages and then using the Chi-Square test to analyze pertinent data. Computations for this study were conducted at the Oklahoma State University Computer Center.

Limitations

There are certain limitations that should be kept in mind while interpreting the results of this study. Since this study is based upon a survey research design, the writer was unable to control or manipulate the variables nor was he able to randomly select the 5,045 respondents considered in the study.

Due to the lack of control cited in the preceding paragraph, caution must be exercised in generalizing the findings. The value of the study is that of a case study of 5,045 respondents to an Underdeveloped Human Resources Survey rather than that of one based upon a rigorous controlled sample representative of a known larger population.

Conclusions

This study documents and analyzes the results of the methods used by an Underdeveloped Human Resources Project. Some evidence has been accumulated from the study that substantiate the fact that these methods tended to be effective for identifying persons underdeveloped in terms of job training and employment. The study supports the fact that there are people unemployed and underemployed that would like to

bring about a better match between their capabilities and present job situation. Furthermore, it appears that these persons will respond positively to some type of job training.

Findings of the study tend to support the "review of literature" in that the underdeveloped worker is often disadvantaged because of age, sex, race, and low levels of skill or education. Analyses indicated that young respondents between 16-21 were more likely to be unemployed or employed only part-time than were older respondents. This group also had very little job training which also compounds the situation.

Females are at a greater disadvantage than are the male respondents with respect to employment. Proportionately more male respondents are apt to be employed full-time than female respondents. The result is poor utilization of female resources accompanied with low incomes.

It is also quite clear that minority group members, especially Negroes, are disadvantaged on practically all levels when compared with the white respondents. Negro respondents had less job training, a greater percentage unemployed, and the lowest weekly income.

The methodology used by the Underdeveloped Human Resources Survey failed to yield a large percentage of minority group members (Negro, 11.5 percent; American Indian, 3.7 percent; Mexican American, 0.3 percent; and Oriental, 0.2 percent). This finding is rather disappointing since a larger percentage of minority members are underdeveloped in terms of job training than are whites. It is not known how much of the lack of minority respondency can be contributed to hopelessness and dejection. It could very well be that minority group members participated in other surveys that did not result in job training or

employment. The "review of literature" in this study suggests some techniques which might be examined.

The findings indicate that 40.2 percent of the respondents did not have any type of occupational training while 68.1 percent showed an interest in obtaining training. It was impossible to differentiate between formal occupational training and on-the-job training due to data limitations. Interestingly a majority of the interview respondents in the subsample expressed not only an intense interest in training, but voiced that some type of follow-up should have resulted upon completion of the questionnaire. These persons had high expectations for job training and employment even though this was not directly implied in the survey. These results appear to be sufficient evidence to indicate the need for follow-up with training and employment opportunities for those respondents who can profit by such. Unless these persons are contacted and informed that their questionnaires are still active, their response to other surveys could be very low.

A prosperous economy can take a turn for the worse in a relatively short period of time as was the case when the Underdeveloped Human Resources Survey was conducted. The time between the distribution of questionnaires and data processing required more than seven months. Some method should be devised so that information for job matching and job training is more reflective of the economy. Respondents indicated that too much time had transpired without anyone contacting them about the questionnaire they completed.

Implications

The implications discussed below are presented in light of the findings, conclusions, and additional impressions gained through personal interviews and conferences.

Relative to Statewide Manpower Planning

The implications which follow are put forth tentatively in the hope of generating policy action which might result in providing job training and employment for the persons considered in this study. There is a certain amount of priority involved, and it is possible that the proposals are not feasible in their entirety at the present time.

From the results of this study, it seems apparent that there is a need to provide job training and employment opportunities for respondents in the study. Although there are no comparative statistics, 40.2 percent of the respondents did not have job training and 68.1 percent expressed an interest in training. Thirty-eight percent of the respondents were unemployed. The mere fact that respondents took time to complete and return the questionnaires should be some indication of their desire for training and/or employment. There should be a system whereby relevant manpower decision makers could avail themselves to this information to provide services for underdeveloped human resources. A proposed plan for the dissemination of information on underdeveloped human resources is illustrated by Figure 2.

The system starts by considering the employment status of respondents. If they are employed and earn more than $75 per week, low priority should be given or they should be placed in the "hold" category. This is not to imply that respondents earning more than $75 per

week should not receive job training. It only seems that higher priority should be given to those who are unemployed and/or those with weekly incomes less than $75.

The remainder of the system centers around providing job training for those respondents who are interested and those who can profit from the same. This should include counseling services so that any remedial work needed can be provided. Hopefully the job training will lead to meaningful and rewarding employment which will improve the economic and social conditions of those participating. The Oklahoma State Employment Security Commission (OESC) and private industry serving the nine counties should be encouraged to take an active roll in providing their services.

To implement the system for disseminating information on underdeveloped human resources will require an enormous amount of cooperation from various agencies and organizations. For example, services are needed to train, employ, and follow-up the respondents served. Seven relevant manpower decision makers that should be considered in the dissemination of information on underdeveloped human resources were listed in the publication Occupational Training Information System: Final Report. The decision makers are presented below.[1]

1. Industrial Development and Park Development
2. State Department of Vocational and Technical Education
3. Concentrated Employment Program (CEP)
4. Community Action Program (CAP)
5. Local School Administrators
6. Ozarks Regional Commission
7. Secretariate of Cooperative Area Manpower Planning System (CAMPS)

No attempt was made to rank the decision makers presented above in terms of importance or responsibility. It appears, however, that

overall coordination should be given to the Secretariate of CAMPS on the local level since this is a designated purpose of the organization. Nevertheless, the agency or organization responsible for overall coordination should work closely with each of the manpower decision makers listed above.

Relative to Further Study

1. With the unemployed respondents identified in this study, an experimental study should be initiated using data collected by the Occupational Training Information System to determine the effectiveness of supplemental labor market information upon the job search process of respondents.

2. It is recommended that the respondents in this study be followed up at regular intervals to determine their training and employment status. Mailing information for contacting respondents could be facilitated through the use of a computer.

3. From the results of this study, it seems apparent that there are certain weaknesses in the questionnaire used. Before further study of this nature is undertaken a more refined instrument should be developed.

4. It required more than seven months to collect and process the data for this study. Methods should be devised so that respondents can be contacted in a short period of time.

5. The findings of the study revealed that a small percentage of American Indians and Negroes responded to the survey. The "review of literature" pertinent to this study should be studied for a variety of

techniques that might be used in the identification of the real "hard core" disadvantaged.

6. Initiate the planning for a series of more rigorously controlled studies in Oklahoma SMSA and rural areas using data from the 1970 Census to determine target areas. To supplement the techniques utilized in this study, use should be made of lay people and outreach activities to reach the real disadvantaged. Support should be obtained from local business and industry so that job opportunities could be provided.

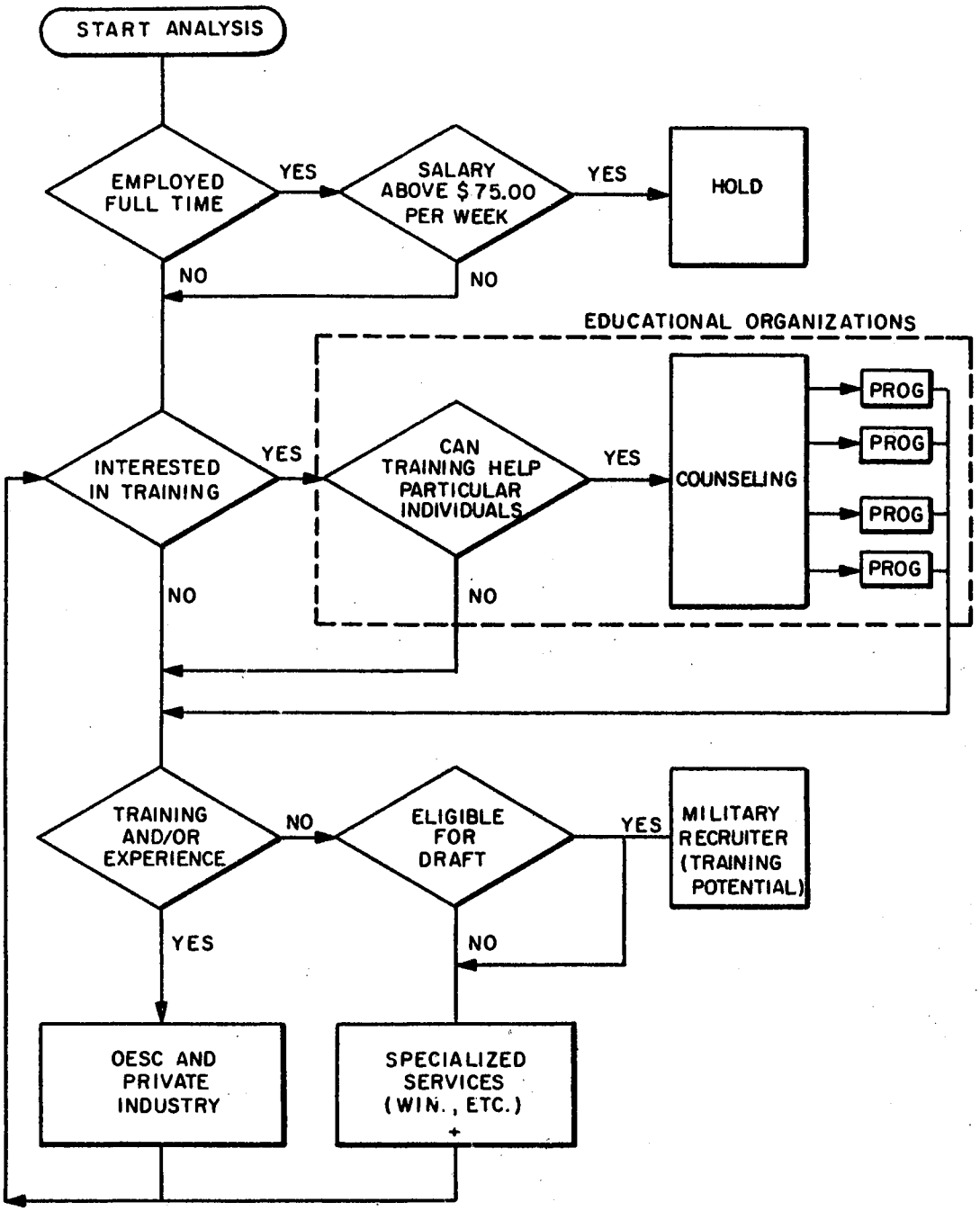

Figure 2: A Proposed Plan for Dissemination of Underdeveloped Human Resources Information.

FOOTNOTES

[1]Paul V. Braden, James L. Harris, and Krishan K. Paul, Occupational Training Information System: Final Report (Stillwater, 1970), F-6.

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APPENDIX A

QUESTIONNAIRE AND

COVER LETTER

LABOR AVAILABILITY SURVEY

RETURN TO
MANPOWER DEVELOPMENT
616 SOUTH BOSTON
TULSA, OKLAHOMA 74119

NAME _____ SOCIAL SECURITY NO. _____
(First) (Last)

MAILING ADDRESS: _____
(Street) (Town) (County) (Zip)

PHONE _____ DATE _____

1. AGE GROUP: (Circle one)
   I am from 16 to 21 years old ... 1
   I am from 22 to 30 years old ... 2
   I am from 31 to 40 years old ... 3
   I am from 41 to 50 years old ... 4
   I am from 51 to 60 years old ... 5
   I am 61 years old or older 6

2. SEX: (Circle one)
   I am: male 1
   female 2

3. MARITAL STATUS: (Circle one)
   I am: married 1
   single 2
   divorced 3
   separated 4

4. RACE: (Circle one)
   I am: Afro-American 1
   American Indian 2
   Mexican American 3
   White 4
   Oriental 5

5. NUMBER OF DEPENDENTS:
   (Circle one) 1 2 3 4 5 6 or more

6. EDUCATION: (Circle last year completed)
   (a) 1 2 3 4 5 6 7 8 9 10 11 12
   COLLEGE
   1 2 3 4 OTHER _____
   (b) When did you last attend school _____ year

7. I have job training: Yes 1 No 2
   If yes, what type of training
   (For example: Typist, Machinist)
   _____
   _____ (year completed)

8. I will take job training to qualify for a job:
   Yes 1 No 2

9. EMPLOYMENT STATUS: (Circle one)
   Employed Full-time 1 Part-time 2
   Unemployed 3

10. I have work experience in an industrial plant
    Yes 1 No 2

11. I have machine operation experience in a manfacturing plant. Yes 1 No 2

12. INCOME: (Circle one)
    I receive: less than $30 per week 1
    from $30 to $50 per week 2
    from $50 to $75 per week 3
    more than $75 per week 4

13. MAJOR SOURCE OF INCOME: (Circle one)
    Wages 1
    Social Security 2
    Public Assistance 3
    Other 4

14. Circle the maximum number of miles you would travel to work:
    5 10 15 20 25 30 35 40 45 50

15. Do you have personal transportation: (Circle one)
    Yes 1 No 2 (Car less than 6 years old)

16. I prefer to work during: (Circle one)
    The day 1
    The evening 2
    The night 3
    No preference 4

17. I am eligible for the draft now or will be in the near future: Yes 1 No 2

18. Type of job I am interested in
    _____
    _____
    _____
    _____
    _____

(Back of Questionnaire)

PLACE STAMP HERE

MANPOWER DEVELOPMENT
616 SOUTH BOSTON
TULSA, OKLAHOMA 74119

(Cover letter of Questionnaire)

STATE OF OKLAHOMA
OFFICE OF THE GOVERNOR

OKLAHOMA CITY

DEWEY F. BARTLETT
GOVERNOR

Fellow Oklahoman:

Can you qualify for a better job within your company, a job for a new Oklahoma industry or a training program to assist you to achieve these goals?

The industries in your area have projected their needs for new people and new growth. Maybe a match can be made between your qualifications and industry's needs. Please take a few moments, fill out this questionnaire and drop it in the mail.

This census is being sponsored and conducted by your local Chamber of Commerce, Oklahoma's Industrial Development Division and the State's Vocational Technical Education Department. The Occupational Training Information System (OTIS) will be used to aid in matching your job with industry's need.

Your cooperation in filling out the enclosed form will be greatly appreciated.

Sincerely,

Dewey F. Bartlett
GOVERNOR

DFB/jb
enclosure

APPENDIX B

CODING GUIDE FOR TYPE OF OCCUPATIONAL TRAINING

CODING GUIDE FOR TYPE OF TRAINING*

Agriculture Education

Program Description

Agriculture is comprised of the group of related courses or units of subject matter which are organized for carrying on learning experiences concerned with developing knowledge, understandings, and skills involved in preparation for or upgrading in occupations requiring knowledge and skills in agricultural subjects. The functions of production agriculture, agricultural supplies, agricultural mechanization, agricultural products (processing), ornamental horticulture, and the services related thereto, are emphasized in the instruction designed to provide opportunities for pupils to prepare for or improve their competencies in agricultural occupations. An agricultural occupation may include one or any combination of these functions.

Types of Jobs Which May be Found in This Area:

Grounds Keeper	Farm Hand, General
Mechanic, Farm Equipment	Farm Manager, Supervisor or Owner

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*SOURCE: United States Department of Health, Education, and Welfare, Standard Terminology for Curriculum and Instruction in Local and State School Systems, Fourth Draft (Washington: Government Printing Office, 1969).

Distributive Education (Distribution and Marketing)

Program Description

Distributive education (distribution and marketing) includes various combinations of subject matter and learning experiences related to the performance of activities that direct the flow of goods and services, including their appropriate utilization, from the producer to the consumer or user. These activities include buying, selling, transportation, storage, marketing research and communications, marketing finance, and risk management.

Distributive education is a program of occupational instruction in the field of distribution and marketing. It is designed to prepare individuals to enter, to progress, or to improve competencies in distributive occupations. Emphasis is on the development of attitudes, skills, and understanding related to marketing, merchandising, and management. Instruction is offered at the secondary, postsecondary, and adult education levels. Distributive occupations are found in such businesses as retail and wholesale trade; finance, insurance and real estate; services and service trades; manufacturing; transportation and utilities; and communications.

Types of Jobs Which May be Found in This Area:

Salesman, Insurance	Sales Occupations (Commodities)
Salesman, Real Estate	Sales Clerk
Sales Occupations (Services)	Routeman

Health Occupations Education

Program Description

Education for health occupations comprises the body of related subject matter, or the body of related courses, and planned experiences designed to impart knowledge and develop understandings and skills required in the supportive services to the health professions. Instruction is organized to prepare pupils for occupational objectives concerned with assisting qualified personnel in providing diagnostic, therapeutic, preventive, restorative, and rehabilitative services to people including understandings and skills essential to care and health services to patients.

Education for health workers usually is conducted by recognized education agencies and appropriate health institutions and services that can make available the quality and kind of experiences needed by the trainee in developing the competencies required for his occupational goal.

Instructional programs which prepare persons for occupations that render health services directly to patients (people) provide planned clinical instruction and experience in appropriate clinical situations. For those occupations that render health services which do not involve direct services to patients, planned instruction and experience in laboratories and/or appropriate work situations are provided as an integral part of the instructional program.

Types of Jobs Which May be Found in this Area:

Medical Assistant	Surgical Technician
Ward Clerk	Nurse L.P.N.

Medical-Record Clerk	Nurse, General Duty and Office Nurse
Psychiatric Aide	
Nurse Aide	Nurse, Industrial Staff
Medical Laboratory Assistant	Radiologic Technologist

Home Economics Education

Program Description

Home Economics comprises the group of related courses or units of instruction organized for purposes of enabling pupils to acquire knowledge and develop understanding, attitudes, and skills relevant to (a) personal, home and family life, and (b) occupational preparation using the knowledge and skills of home economics. The subject matter of home economics includes in addition to that which is unique to the area, concepts drawn from the natural and social sciences and humanities.

Types of Jobs Which May be Found in This Area:

Food Service Supervisor	Seamstress
Cutter, Hand or Machine	Sewing Machine Operator

Office Occupations Education

Program Description

This body of subject matter, or combinations of courses and practical experience, is organized into programs of instruction to provide opportunities for pupils to prepare for and achieve career objectives in selected office occupations. In the instructional process various aspects of subject matter frequently are drawn from other subject-matter areas. Learning experiences are designed to lead to

employment and/or advancement of individuals in occupations in public or private enterprises or organizations related to the facilitating function of the office. Included is a variety of activities, such as recording and retrieval of data, supervision and coordination of office activities, internal and external communication, and the reporting of information. Under this heading are the items of information which identify categories of career objectives in office occupations, and around which courses and practical experiences are developed.

Types of Jobs Which May be Found in This Area:

Tabulation-Machine Operator	Secretary
Keypunch Operator	Stenographer
Card-tape-Converter Operator	Personnel Clerk
Records Custodian	Bookkeeper (Hand)
Bookkeeping Machine Operator	Rater
Statement Clerk	Payroll Clerk
Clearinghouse Clerk	General Office Clerk
Clerk-Typist	Interest Clerk
Transit Clerk	Sorting Clerk
New Account Clerk	Claims Clerk
Credit Clerk	Accounting Clerk
Currency Sorter	Insurance Checker
Room Clerk	Cashier
Teller	Accountant

Technical Education

Program Description

Technical education is concerned with that body of knowledge organized in a planned sequence of classroom and laboratory experiences usually at the postsecondary level to prepare pupils for a cluster of job opportunities in a specialized field of technology. The program of instruction normally includes the study of the underlying sciences and supporting mathematics inherent in a technology; and of the methods, skills, materials, and processes commonly used and services performed in the technology. A planned sequence of study and extensive knowledge in a field of specialization is required in technical education, including competency in the basic communication skills and related general education. Technical education prepares for the occupational area between the skilled craftsman and the professional person such as the doctor, the engineer, and the scientist.

The technical education curriculum must be so structured that it prepares the graduate to enter a job and be productive with a minimum of additional training after employment, provides a background of knowledge and skills which will enable him to advance with the developments in the technology, and enables him, with a reasonable amount of experience and additional education, to advance into positions of increased responsibility.

The technician frequently is employed in direct support of the professional employee. For example, the engineering technician will be capable of performing such duties as assisting in the following engineering functions: designing, developing, testing, modifying of

products and processes, production planning, writing reports, and preparing estimates; analyzing and diagnosing technical problems that involve independent decisions; and solving a wide range of technical problems by applying his background in the technical specialities--science, mathematics, and communicative and citizenship skills.

Types of Jobs Which May be Found in This Area:

Draftsman, Architectural	Programmer, Scientific and Engineering
Draftsman, Electrical	Airplane Pilot, Commercial
Draftsman, Electronic	Writer, Technical Publications
Draftsman, Geological	Safety Man
Draftsman, Map	Building Inspector
Draftsman, Civil	Technician, Mechanical Engineering
Draftsman, Mechanical	Technician, Electrical
Technician, Electronic	Instrument Maker
Technician, Civil Engineering	Surveyor
Technician, Instrumentation	Technician, Quality Control
Technician, Industrial Engineering	Technician, Laboratory
Digital Computer Operator	Programmer, Detail
Programmer, Business	

Trades and Industrial Occupations

Program Description

Trades and industrial occupations is the branch of vocational education which is concerned with preparing persons for initial employment, or for upgrading or retraining workers in a wide range of trades and industrial occupations. Such occupations are skilled or semiskilled

and are concerned with layout designing, producing, processing, assembling, testing, maintaining, servicing, or repairing any product or commodity. Instruction is provided (1) in basic manipulative skills, safety judgment, and related occupational information in mathematics, drafting, and science required to perform successfully in the occupation, and (2) through a combination of shop or laboratory experiences simulating those found in industry and classroom learning. Included is instruction for apprentices in apprenticeable occupations or for journeymen already engaged in a trade or industrial occupation. Also included is training for service and certain semiprofessional occupations concerned to be trade and industrial in nature.

Types of Jobs Which May be Found in this Area

Illustrator	Template Maker
Lay-Out Man, (Printing and Publishing)	Machine Set Up Operator
Photolighographer	Precision Grinder
Cameraman or Photographer	Production Machine Tool Operator
Chef	Cook
Meat Cutter	Shear Operator (Power)
Butcher, All Round	Punch Press Operator
Grader, Meat	Press Operator (Heavy Duty)
Boner or Skinner	Brake Operator (Power)
Fireman	Metal Fabricator
Policeman or Detective	Roll Operator, Sheet Metal
Sheriff or Baliff	Sheet Metal Worker
Layout Man (Sheet Metal)	Bench Grinder
Mechanic, Automobile	Parts Clerk, Automotive
Machinist, All Round	Flight Engineer

Machine Builder

Layout Man (Machine)

Mechanic, Air Conditioning (Automotive)

Mechanic, Air Conditioning and/or Refrigeration

Linotype Operator

Cylinder-Press Man

Offset Press Man

Cabinet Maker

Millman

Furniture Finisher

Lineman

Electric Motor Repairman

Radio & Television Repairman

Radio Mechanic, Aircraft

Electronics Mechanic

Electronics Assembler

Welder

Flame Cutter, Hand

Baker

Painter or Paperhanger

Carpenter

Floor Layer

Cement Mason or Concrete

Brick Layer

Furniture Upholsterer

Plumber

Mechanic, Aircraft Engine

Mechanic, Aircraft Jet Engine

Mechanic, Aircraft Accessories

Assembler, Aircraft Structures and Surfaces

Assembler, Subassembly (Aircraft)

Mechanic, Maintenance

Appliance Repairman (Household)

Mechanic, Diesel

Office Machine Service Man

Aircraft Mechanic, Electric

Furniture or Hardware Assembler

Electrician

Automobile Body Repairman

Painter, Automobile

Welding Machine Operator

Instrument Man

Flame Cutting Machine Operator

Dough Mixer

Painter, Spray

Dry Wall Applicator

Tile Setter or Terrazzo Worker

Roofer

Finisher

Heavy Equipment Operator

Air Traffic Control Specialist

Stationary Engineer

APPENDIX C

INTERVIEW SCHEDULE FOR SUBSAMPLE OF RESPONDENTS

INTERVIEW SCHEDULE FOR SUBSAMPLE OF RESPONDENTS

TO LABOR AVAILABILITY SURVEY

Introduction: (Greeting) I am (interviewer's name) from the _____. We are contacting people who have completed a Labor Availability Survey form (provide a form for respondent to examine) in (date). We would like to see if there have been any changes in your employment status and training interest since you completed the form.

You may be wondering why you have been chosen to be interviewed. You have been chosen randomly as a representative of the people who completed and returned the form. YOUR ANSWERS WILL BE KEPT CONFIDENTIAL AND RESPONSE TO ANY ITEM IS PURELY VOLUNTARY.

Name: Mr. / Mrs. / Miss _____

Street No._____ Street Name_____

Apt. No._____ Letter_____ City (1) Tulsa_____ Zip Code 74___
(2) Other_____

Telephone No._____ Area Code_____

Date_____ Time_____

Personal and Educational Background

1. Age:

_____

2. Sex:

_____(1) Male
_____(2) Female

3. What is your present marital status?

_____(1) Married
_____(2) Single
_____(3) Divorced
_____(4) Separated
_____(5) Widowed

4. Race:

_____(1) Afro-American
_____(2) American Indian
_____(3) Mexican American
_____(4) White
_____(5) Oriental
_____(6) Other (Specify_____)

5. How many children do you have?

0 1 2 3 4 5 6 or more

6. How many individuals, other than yourself, rely on you for support?

Total Support? 0 1 2 3 4 5 6 or more

Partial Support? 0 1 2 3 4 5 6 or more

7. What is the highest year of education you have completed?

01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16

_____Other (Specify)

8. Are you attending school now?

_____(1) Yes
_____(2) No

9. Have you ever completed a vocational training program?

_____(1) Yes
_____(2) No

10. Do you have a marketable skill?

_____(1) Yes
_____(2) No

11. (If yes) What type of skill do you have? _____
(Description)

12. (If no) Would you be interested in attending a vocational school to improve your chances for a better job or a higher paying job?

_____(1) Yes
_____(2) No

13. What kind of vocational school would you be interested in attending?

_____(1) a two-year college
_____(2) a vocational-technical school
_____(3) a skills center
_____(4) other _____

14. Do you feel that your financial condition would allow you to attend a vocational training program?

_____(1) Yes
_____(2) No
_____(3) Undecided

15. Providing that everything else is satisfactory, do you feel that you could afford the time to attend a training program?

_____(1) Yes
_____(2) No
_____(3) Undecided

16. If you were contacted in the near future about the possibility of vocational-technical training to improve and/or update your skills, what kind of training would you want? List first three preferences:

_____(1)

_____(2)

_____(3)

17. Do you know of any training programs in the greater Tulsa area that could prepare you for a job?

_____(1) Yes
_____(2) No

18. (If yes) What training programs are you familiar with?

_____

_____

19. How did you learn about these training programs?

_____(1) Friends or relatives
_____(2) Radio or TV
_____(3) Employment Service
_____(4) Newspapers
_____(5) Welfare Agency
_____(6) Other _____

20. What was your total income for the last year? $_____

21. How were you paid?

_____(1) Day
_____(2) Week
_____(3) Bi-monthly
_____(4) Monthly
_____(5) Other (Specify_____)

How much was this? $_____

Employment Status

22. Has there been a change in your employment status since you completed the Labor Avilability Survey form?

_____(1) Yes
_____(2) No
_____(3) Other_____

23. (If yes) What change has there been in your employment status?

_____(1) Presently working full-time
_____(2) Presently working part-time (Less than 35 hrs. per week)
_____(3) Presently unemployed

24. What was your employment status when you completed the form last fall?

_____(1) Employed full-time
_____(2) Employed part-time
_____(3) Unemployed

25. When working, do you consider yourself the primary wage earner in your family?

_____(1) Yes
_____(2) No

26. Are you presently looking for work?

_____(1) Yes
_____(2) No

27. (If yes) How many weeks have you been looking for full-time work?

_____Weeks

28. (If looking for work) What are some of the ways in which you have sought work (newspapers, friends, Employment Security Agency, etc)?

_____

_____

_____

29. Do you have any personal work handicaps?

_____(1) Yes
_____(2) No

30. (If yes) What handicaps do you have?

_____(1) Faulty Vision
_____(2) Faulty Hearing
_____(3) Speech Defect
_____(4) Heart Condition
_____(5) Other (Specify_____)

31. (If unemployed) Give the main reason why you feel you do not have a job?

_____(1) Lack of adequate education
_____(2) Inadequate skill
_____(3) Inadequate work experience
_____(4) Too old
_____(5) Too young
_____(6) Poor health
_____(7) Police record
_____(8) Only low-paying jobs are available
_____(9) Only part-time jobs are available
_____(10) Other _____

Note: Explain again the purpose of the Labor Availability Survey Questionnaire.

Attitudes Toward the Survey

32. How did you find out about this survey?

_____

33. Where did you get the Labor Availability Survey form?

_____

_____

34. How did you return the form?

_____(1) Mail
_____(2) In Person
_____(3) Other (Specify_____)

35. How do you feel about the Labor Availability Survey after no response to your completed questionnaire?

_____

_____

_____

36. Why did you complete the form?

_____

_____

_____

37. Do you think that the attempt to identify individuals in need of job training and employment was a worthwhile effort?

_____(1) Yes _____

_____

_____(2) No _____

_____

38. Would you like to make any general remarks about how you feel about the Labor Availability Survey?

_____

_____

_____

_____

END OF INTERVIEW

VITA

Theodore Ingram

Candidate for the Degree of

Doctor of Education

Thesis: A DEMONSTRATION AND EVALUATION OF AN UNDERDEVELOPED HUMAN RESOURCES PROJECT WITH IMPLICATIONS FOR STATEWIDE MANPOWER PLANNING

Major Field: Higher Education

Biographical:

Personal Data: Born on August 22, 1937, near Palestine, Texas, the son of Mr. and Mrs. Washington Ingram.

Education: Graduated from Green Bay High School, Tucker, Texas, in 1955; received the Bachelor of Science degree with a major in Industrial Education from Texas Southern University, Houston, Texas, in 1963; received the Master of Science degree with a major in Industrial Education from Stout State University, Menomonie, Wisconsin, in 1967; participated in National Science Foundation summer institute at Trinity University, San Antonio, Texas, 1967; completed requirements for the Doctor of Education degree at Oklahoma State University in May, 1971.

Professional Experience: Teacher at Turner School, Houston, Texas, from 1964 through 1966; graduate assistant in the department of electronics at Stout State University, Menomonie, Wisconsin, 1966 through 1967; electronics instructor at Texas Southern University, Houston, Texas, from 1967 through 1968; research associate in electro-mechcanial technology in the department of technical education at Oklahoma State University, 1968 through 1970.

Professional Organizations: Member of the American Technical Education Association, National Association of Industrial and Technical Teacher Educators, and Phi Delta Kappa Fraternity.